5-2020

The Lived Experience of Nurses Caring for Patients Diagnosed with Infective Endocarditis Who Use or Have Used Intravenous Drugs in Appalachia: A Phenomenological Study

Kendrea Lea Todt
University of Tennessee, ktodt@vols.utk.edu

To the Graduate Council:

I am submitting herewith a dissertation written by Kendrea Lea Todt entitled "The Lived Experience of Nurses Caring for Patients Diagnosed with Infective Endocarditis Who Use or Have Used Intravenous Drugs in Appalachia: A Phenomenological Study." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Nursing.

Sandra Thomas, Major Professor

We have read this dissertation and recommend its acceptance:

Lora Beebe, David Patterson, Samereh Abdoli

Accepted for the Council:

Dixie L. Thompson

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

The Lived Experience of Nurses Caring for Patients Diagnosed with Infective Endocarditis Who Use or Have Used Intravenous Drugs in Appalachia: A Phenomenological Study

A Dissertation Presented for the

Doctor of Philosophy

Degree

The University of Tennessee, Knoxville

Kendrea Lea Todt

May 2020

Dedication

To the nurses who shared their stories, this was for you. I am eternally grateful.

To my husband Tony Todt, thank you for believing in my vision and sharing this journey with me. You are my rock.

To my children Anthony, Callie, Andrew, and Catherine, thank you for your steadfast encouragement, this was all for you.

To my father Robert Childress who has always inspired me, I have courage because of you.

To my mother Karen Gail Childress who has always been my biggest fan, I fly high because of your love.

To my sister Kimberly Renee Farnsworth who has always been my steadfast cheerleader, you have a gift of encouragement. I am your biggest fan.

To my brother Keith Childress, also a steadfast encourager, thank you.

Acknowledgments

What a journey this has been, I want to thank Dr. Sandra Thomas, my committee chair, a phenomenology master, role model, and mentor, there are no words to express the depth of my gratitude; my success is because of her steadfast encouragement and tutelage. She is sensational. Thank you Dr. David Patterson, Dr. Lora Beebe, and Dr. Samereh Abdoli for your willingness to serve on my dissertation committee. Your expertise, inspiration, and encouragement have been instrumental to my success along this journey, thank you for sharing your time and talents. Thank you to Dr. Reba Umberger, my former advisor and professor for sharing this dissertation topic with me, I will be forever grateful.

To the members of the Transdisciplinary Phenomenology Research Group (TPRG) at the University of Tennessee, thank you for sharing your interpretive gifts and mentorship with me, Room 313 in the College of Nursing will always symbolize Tolkien's Rabbit Room, a place of scholarly inquiry. Dr. Thomas, Dr. Moret, Dr. Greenberg, Dr. Smith, and Dr. Sohn, and all the student members, it has been such a privilege and honor to work with you. To my professors at the University of Tennessee, I thank you, this has been one of the most arduous and yet exhilarating journeys of my life. It has been a privilege and honor to learn from you. I will thank my God upon every remembrance of the beautiful people at the University of Tennessee who helped make my dream a reality.

Thank you to my colleagues from King University, Tusculum University, and East Tennessee State University who encouraged, inspired, and mentored me along this invigorating journey, you blessed me. I will pay it forward. Thank you to my larger family and friends who saw me at worst, and loved me anyways, this was for you. Your unconditional love and support have been the wind in my sails. To my classmates, Shade Adigun, Jean Sconza, Sarah

Covington, Lauren Mefford, Jenn Shearer, Linda Banks, Susan Blaine, Erin Arcipowski, Brenna Adelman, Sheila Williams, Carla Neale, Ashley Roach, Maureen Baksh-Griffin, Julie Hubbard, and the late Faye Hughes, it was such a privilege and an honor to walk this journey with you. I could not have done this without you. Thank you for your steadfast encouragement. I will never forget you, my forever colleagues. I am grateful for your presence in my life. Lastly, I thank my God for lovingly guiding me into nursing and leading me to the University of Tennessee for one of the greatest adventures of my life. I am grateful His mercies are new every morning, great is His faithfulness. All the honor and glory are for Him.

Abstract

Infective endocarditis (IE) from intravenous drug use (IVDU) is an increasing problem in Appalachia. IE is an infection of the inner lining of the heart which may be contracted from body piercing, tattooing, or tooth brushing. In the person who uses IV drugs, the infection is generally needle borne. The Appalachian Region has been profoundly affected by the opioid crisis. Hospitalizations of Appalachians diagnosed with IE from IVDU are rising. Appalachians operate from a strong moral compass, gauging behavior as right or wrong. In the literature, health care provider attitudes towards patients with substance use disorder (SUD) are pejoratively negative, with nurses amongst the most punitive. In the patient diagnosed with IE, surgery is often needed to repair a failing heart. However, in patients who use IV drugs, surgery is only occasionally considered. Conversations of medical futility, resource allocation, and individual worth are occurring in the medical community and mainstream media. Notably absent from the literature and greater societal conversation is the voice of the nurse caring for this vulnerable population. The purpose of this study was to describe the meaning nurses ascribe to caring for patients diagnosed with IE from IVDU in Appalachia using the tenets of Merleau-Ponty's existential phenomenology. The University of Tennessee Knoxville (UTK) Method developed by Thomas and Pollio (2002) guided this study. Nine nurses were interviewed using an unstructured phenomenological approach. Participants age ranged from 29 to 53 years with one to 31 years of nursing experience. Data analysis included reading and analyzing verbatim transcripts to formulate meaning units and global themes to construct a thematic structure that described the essence of the experience. An overarching polar theme of helplessness/hope permeated across the transcripts, as nurses struggled with a sense of futility in their care. Four figural themes arose from this central theme: (1) guarding/escaping; (2) responsibility and revulsion; (3)

apathy/empathy; and (3) grief and sorrow/cold and unemotional. Study rigor was ensured by bracketing, peer debriefing, member checking, data saturation, and rich participant quotes to support the themes. Study findings add to addiction science literature with implications for nursing education, health policy, and nursing practice.

Table of Contents

Chapter 1

Introduction

Debates of medical futility concerning the ethics of heart valve surgery in patients diagnosed with infective endocarditis (IE) contracted from intravenous drug use (IVDU) are occurring in the medical community (Hull & Jadbabaie, 2014; Yeo et al., 2006), and yet the voice of the nurse is absent on this critical issue. The debate is ongoing as to whether or not it is ethical to withhold a surgery based on someone's drug use, especially if they are actively using. A first valve surgery may be offered, but with strings attached as patients are required to undergo drug rehabilitation and "be compliant with treatment" (Ji et al, 2012, p. 3). Frank discussions of ethics ensue as questions surround whether or not it is ethical to limit a patient's medical treatment based upon their behavior (Mishra, 2018). Some surgeons refuse to operate and instead transition patients to palliative care, as rates of reoccurrence of IE in individuals who use IV drugs are high (Ji et al., 2012). According to Deas and Keeling (2018), "even after a major cardiac operation, nearly 70% of the IVDU relapsed" (p. 1).

Kaura et al. (2017) describe IE as the "'Cinderella of heart disease, having a relatively low media profile and limited research funding'" (p. 966). However, in April of 2018 *The New York Times* ran a story, *Injecting Drugs Can Ruin a Heart. How Many Second Chances Should a User Get?* which poignantly drew attention to the ethical debate surrounding the diagnosis of IE and the subsequent treatment trajectory. The article detailed a patient's pleas for her life to a "skeptical nurse," "please don't let me die. I promise, I won't ever do it again" (Goodnough, 2018, paragraph 1). The photographer captured an evocative image of this young woman clutching her visible precordium surgical scar. Her fingernails were dirty with remnants of cracked black polish visible evoking a powerful image of an Appalachian survivor of the opioid

crisis. The young woman posed a question, "when do you stop wanting to save a life?…This isn't an easy disease to break away from" (Goodnough, 2018). She detailed her experience of taking a friend also diagnosed with IE from IVDU to the hospital for treatment, but the focus of the care quickly shifted from curative care to end of life care:

> A girl, she had it two or three days before I brought her to the hospital, but her case wasn't nowhere near as severe as mine…They gave her 12 hours' worth of antibiotics and said it wasn't working. They quit; put her on comfort care. She lived almost two weeks. (Goodnough, 2018)

The significance of this newspaper article was that it raised awareness of a direct downstream effect of the opioid crisis, an increase in drug use related serious infections. In addition, the article highlighted the problem in Appalachia by detailing the struggle of a young Appalachian mother diagnosed with IE from IV drug use and the ethical dilemma surrounding her treatment, heart valve replacement surgery versus medical therapy only. She is one of the lucky ones offered surgery. She is a survivor. Due to the opioid crisis thousands of lives are lost every year in the USA, with the Appalachian Region profoundly impacted (ARC, 2019). Nurses are working in a time of "dramatic increase" in deaths occurring from IV drug use in midlife Americans, a problem that is pronounced in rural Appalachia (Ferraris & Sekela, 2016, p. 677).

The nurse portrayed in *The New York Times* story was depicted as "skeptical" (Goodnough, 2018). The pejorative attitudes of health care professionals towards patients with SUD are concerning (van Boekel et al., 2013), with nurses amongst the most punitive (Howard & Chung, 2000a; Howard & Chung, 2000b). These negative attitudes contribute to suboptimal care (van Boekel et al., 2013). Nurses are the largest body of health care providers spending

large amounts of time with patients. According to the United States Department of Labor and Bureau of Statistics in 2018 there were 3,059,800 registered nurses and 728,000 licensed practical and licensed vocational nurses working in America (United States Department of Labor and Bureau of Statistics, 2020; 2019). Nurses interact with patients who use illicit substances and are therefore "well positioned to detect and intervene" (Howard et al., 1997, p. 54). Patients diagnosed with IE from IV drug use are usually hospitalized for long periods of time for long term antibiotic therapy, generally four to six weeks (Ji et al., 2012). Stigmatizing attitudes towards patients who use illicit drugs are a detriment, as patients with SUD are labeled as deviants (Ahern et al., 2007).

The medical community has been actively exploring IVDU associated IE in people who use IV drugs (Murdoch et al., 2009; Shetty et al., 2015; Rabkin et al., 2012; Slipczuk et al., 2013). However, the nurses' views of this phenomenon are notably absent from the literature. The medical community opines that consensus guidelines and professional standards are needed to "avoid the pitfalls of bedside rationing" (Yeo et al., 2006, p. 171), as well as the utilization of team approaches to make ethical decisions (Chambers et al., 2014; Dunne et al., 2014; Yeo et al., 2006). Nonetheless, the nursing profession was not included in these conversations to participate in ethical decision making or joining the team for a collaborative team approach to care. Therefore, the purpose of this phenomenological study was to describe the lived experience of the nurse caring for patients diagnosed with IE from IV drug use in Appalachia. This study elucidated an unexplored phenomenon and will help to inform nursing practice and improve care delivery for this vulnerable population. This study will help in informing health policy and assist in the building of policies and procedures to care for vulnerable Appalachians to inform best nursing practice.

Scope of the Problem

On a global scale, there are 13 million people injecting drugs worldwide (World Health Organization [WHO], 2018). In the United States, injection drug use is at epidemic levels (Rudd, Seth, David, & Scholl, 2016). The increase in IE diagnosis contracted by IV drug use is a direct downstream effect of the opioid crisis (Keeshin & Feinberg, 2016). The impact of the crisis on Appalachia is profound, as the number of patients admitted with IE from IV drug use increased considerably over the last decade (Bates et al., 2019). IE is an infection of the heart lining, valve, blood vessel, or heart muscles caused by bacteria entering the blood stream (American Heart Association [AHA], 2017), a serious cardiac infection that is "a feared disease across the field of cardiology" (Cahill et al., 2017, p. 525). Although tooth brushing, poor dental health, tattooing and body piercing are risk factors for contracting IE (Armstrong et al., 2008; Smith et al., 2007), in the patient who uses IV drugs, IE is generally a complication of intravenous drug use (Miró et al., 2002), a needle borne infection contracted from unsterile injection practices (Ji et al., 2012).

William Osler documented cardiac symptoms of "pain, palpitations, sense of distress, and murmur" along with fever, nausea, and vomiting in 1885 (p. 522) and yet more than 100 years later, IE "continues to surprise, frustrate, and perplex" (Prendergast, 2006, p. 879). According to Cahill et al. (2017) the mortality rate for infective endocarditis is 30% at the one-year mark. The incidence rate of IE is between 5 to 10% in patients who use IV drugs as these individuals are more prone to recurrent infection (Miró et al., 2002). However, finding quality care becomes problematic as demonstrated with a story shared by Gosta Pettersson, Cleveland Clinic Vice Chairman of the Department of Thoracic and Cardiovascular Surgery and Section Head, describing a patient who was known to use IV drugs (2015).

> A friend introduced her to heroin. She 'fell in love' with the drug…They [her parents] took her to a local emergency room, where she poured out her concerns about the flu-like symptoms and intense chest pain—so bad it felt as if she couldn't get out of bed…The ER personnel dismissed her symptoms as withdrawal. They refused to perform a chest X-ray or any other tests. They gave her Tylenol®, told her to stay off drugs and sent her home.

The ethical dilemma of surgeons weighing the use of resources versus medical futility is concerning (Mishra, 2018), as surgery is only "occasionally considered" due to the nature of infection involving a patient's IV drug use, and is thus treated medically (Baddour et al., 2015, p. 1466). According to Aultman et al. (2018):

> The stigma associated with substance use disorder is prevalent, which leads to significant biases, even in the healthcare system. The bias is heightened when patients who use intravenous drugs require repeat valve replacement surgeries for IE due to continued drug use. (p. 133)

Rates of recidivism are high, operations are complex and tedious and consume "dramatic resource expenditures" (Ferraris & Sekela, 2016, p. 677). For this reason, cardiothoracic surgeons Ferraris and Sekela (2016) admit that patients with SUD are not favored patients, and sadly, the underlying reasons for drug use are often ignored.

There is inadequate recognition, even among health care professionals, that recidivism, which is the tendency to relapse, is expected in individuals fighting addiction. As noted by Volkow, "the recognition of addiction as a disease that affects the brain is essential for large-scale prevention and treatment programs that require the participation of the medical community" (2014, para. 21). Addiction is not a moral failing (Goffman, 1963) rather a

psychiatric disorder where predispositions to using drugs collide with environmental factors (Wong et al., 2011). Health care professionals basing care decisions on a patient's behavior is concerning. Nurses are primary caregivers spending large amounts of time with patients affording them a platform to improve patient health and well-being (Bartlett et al., 2012), and yet the voice of the nurse concerning this ethical dilemma is silent, as no studies were found exploring this phenomenon through the eyes of the nurse. For this reason, nurses were in a prime position to describe an unexplored phenomenon from their first-person perspective.

Philosophical Framework of the Study: Maurice Merleau-Ponty's Existential Phenomenology

An interpretive phenomenological approach guided this inquiry which transcended the simple descriptions of "core concepts and essences" to elucidate embedded meaning in living (Lopez & Willis, 2004, p. 728). The origins of existentialist perspective are often attributed to Danish philosopher Soren Kierkegaard who explored the struggles entailed in simply being (Thomas & Pollio, 2002). Existentialist philosophy explores who we are and how we live a life that embodies authenticity; this philosophy prompts individuals to examine their freedom and responsibility to shape their circumstances (Thomas & Pollio, 2002). Existentialism was modern and represented a "certain attitude particularly relevant" to mass society with the philosophers sharing a "concern for the individual and personal responsibility" (Mautner, p. 207).

Early existentialists, Soren Kierkegaard, Friedrich Nietzshe, and Martin Heidegger delineated authentic existence from simple social existence. Moreover, Kierkegaard regarded "passionate, personal choice and commitment" as essential to authentic existence (Mautner, 2005, p. 208). Existentialism was fused with phenomenology by Edmund Husserl who then coined the term phenomenology to construct "a rigorous new science in which there could be

systematic investigation of those things we take for granted in everyday life for (in what he called the 'natural attitude')" (Thomas & Pollio, 2002, p. 9). Husserl's desire was to examine experience through a first-person lens while bracketing his assumptions (Buckingham et al., 2011).

Merleau-Ponty originally appreciated Husserl's *essences* but moved beyond his ideas as he realized that words alone do not describe consciousness. To Merleau-Ponty "rediscovering that actual presence of myself to myself" is the essence of consciousness (Merleau-Ponty, 1945/2012, p. xxix). Heidegger's seminal work *Being and Time* in 1927 was touted as a "radical assessment of what it means to exist" (Mautner, 2005, p. 208). Merleau-Ponty appreciated the simplicity of Heidegger's highlighting of everyday existence but he later pointedly deviated from Heidegger (Thomas, 2018).

In the preface of *Phenomenology of Perception* French philosopher Merleau-Ponty described phenomenology as a fluid philosophy in a perpetual state of flux, a process of refinement/development (Merleau-Ponty, 1945/2012, preface), as "any philosophy which is still alive continually transforms itself" (Gallager, 2010, p. 183). Merleau-Ponty's desire was to establish primacy of perception in the "formation of awareness and experience," an iterative or "ongoing transaction" to the world (Thomas & Pollio, 2002, p. 15). The *world* existed prior to our entry and reflection upon it; we are part of the world and it is part of us (Thomas & Pollio, 2002). The world is composed of two parts, the *were* and *aeld* (old), in essence meaning "in the time or age of man," and concerns the "organized totality concerning people or time" (Thomas & Pollio, 2002, p. 205). The body exists in the world within places of meaning, as the "physical matter of natural science becomes the special possessions and objects of some specific human life," these are the places and spaces that have meaning (Thomas & Pollio, 2002, p. 206).

It is our perception that is foundational in informing the "background against which all acts stand out and is thus presupposed by them" (Merleau-Ponty, 1945/2012, p. xxxiv). Merleau-Ponty concluded his *Phenomenology of Perception* (1945/2012) with:

> You reside in your very act. You are your act… […] You give yourself in exchange…Your signification shines forth, dazzlingly. It is your duty, your hatred, your love, your loyalty, your creativity… […]. Man is a knot of relations and relations alone count for man. (p. 483). Phenomenology recognizes the person as the one true absolute source of knowledge of the experience, as the goal is to suspend the moment, "refusing to be complicit with it" (Merleau-Ponty, 1945/2012, p. xxvii, preface).

The term *primacy of perception* refers to Merleau-Ponty's assertion that perception is the most honest translation of "events, objects, and phenomena of the world" (Thomas & Pollio, 2002, p. 14). According to Merleau-Ponty (1945/2012) "perception is learned in an embodied, communal environment…perception of a given entity cannot be fully understood without knowing something of the specific culture" (Thomas, 2005, p. 69). Perception connects a person to the world in a reciprocal fashion, a transaction. It is the context that forces the experience to stand out, stemming from Heidegger's term of *Existenz* (German), or Existence (English), with Latin etymology of *ex* meaning out and *sistare,* to stand, "ex-sist" means to stand out "from its 'there' (*Da*, as in *Dasein*) or from its world (as in being-in-the-world)" (Thomas & Pollio, 2002, p. 16).

According to Merleau-Ponty the full phenomenon appears to the viewer as a whole, with figures inseparable from the background elements (Thomas, 2005). Perception is the backdrop "against which all acts stand out… the natural milieu and the field of all my thoughts and of all my explicit perceptions" (Merleau-Ponty, 1945/2012, preface, xxiv). Likewise, all perception is

grounded, as “what is perceived must always be understood in relation to the horizon (the ground) upon which it appears” (Sohn et al., 2017, p. 126). To better understand this, the work of Edgar Rubin (1912) depicts a figure/ground dualistic image; it depends on how one views the image, either two faces are seen that mirror the other, or a white vase is noted against a black background; neither image can exist without the other (Thomas & Pollio, 2002). Moreover, in finding the essence of perception, one is not seeking truth, rather it is that “perception is defined as our access to the truth” (Merleau-Ponty, 1945/2012, Preface, xxx).

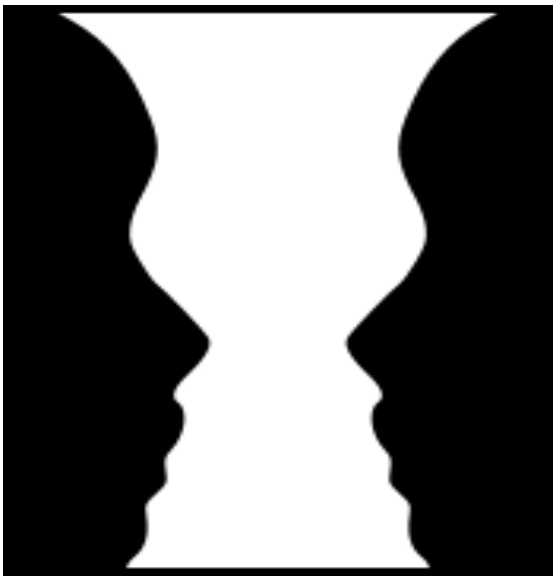

Figure 1.1 Rubin’s Vase Figure-Ground Illustration

To understand the essence of being human in the world requires us to explicate the facticity of the medium that affords us connection to the surrounding world, which is central to understanding a phenomenon (Merleau-Ponty, 1945/2012). To understand the essence or meaning of the experience is to understand *intentionality.* To Merleau-Ponty, intentionality was not about purpose or design rather interaction and awareness with the world, questioning what is

it that draws a person's attention and how they react with their environment is key (Thomas, 2005). It is man who is the source of his own existence, man is not created from external circumstances rather it is he who "moves towards them and sustains them" (Merleau-Ponty, 1945/2012, preface, xxii). Humans are drawn to things (objects or events) in their life-world that hold meaning to them, and conversely their reactions whether in word or deed, hold meaning (Thomas, 2018). Humans are not merely "passive recipients of the 'stimuli' in the life-world'" (Thomas, 2018, p. 376).

In Merleau-Ponty's philosophy, what is figural in people's perceptions is contextualized by four existential grounds (corporeality, temporality, relationality, and spatiality), later simplified in application of his philosophy to human science research as Body, Time, Others, and World (Thomas & Pollio, 2002). Merleau-Ponty asserted that the *body* is sacred and in constant communion with the world; when this dynamic is disturbed, "a person's existence is profoundly shaken" (Thomas, 2005. p. 71). *The body* is the "unwavering vantage point of perception" giving "meaning to the space around itself" (Thomas 2005, p. 71). The *body* is the medium that connects one to the world, not a mere object of medical intrigue, but one of subjectivity and experience, as the body is "the fundamental category of human existence" (Thomas & Pollio, 2002, p. 51), and "inhabits space and time" (Merleau-Ponty, 2012, p. 140). Body image entails a biological system of working parts moving rhythmically and the body as it exists in relation to social attitudes and self-evaluations (Thomas & Pollio, 2002, p. 53).

In regard to *others,* Merleau-Ponty knew life was not lived in a vacuum rather a centrifuge of interactions with others with whom we coexist or collide with on our journey, a knotting or weaving of relationships ensues, with dialogue key. Expounding on embodiment, context of *others* applies as individuals exist in a context of their relationships, bringing past

relationships into the present as "significant others often serve as a context for experiencing relationships outside the family circle," as a transference or transposing past relationships onto current ones (Thomas & Pollio, 2002, p. 98). Conversely, counter transference may occur in a health care setting where health professional "responses to the patient were made in a manner appropriate to the patients' past relationships but *not* to the present context of therapy," which is a counterproductive therapeutic response (Thomas & Pollio, 2002, p. 98).

A true construct of *time* is dependent on events**,** not merely the passing of hours or minutes, rather an acute awareness of oneself in relation to the moment in real time passing through an experience, as an event pushes the reality and brevity of time into our consciousness (Thomas, 2005). Merleau-Ponty implored us to question what is known and return once again to the world as "we experience it, examining the immediacy of the experience before it is classified by science and rational thought" (Thomas & Pollio, 2002, p. 13). Exploring a phenomenon through the lens of *time* is all encompassing as it is representative of past, present, and future. Merleau-Ponty viewed time as a "bursting forth" where presence is a collision of consciousness and time (Thomas & Pollio, 2002, p. 160). Future is viewed as fluid, influenced by past and present relevant experiences (Thomas & Pollio, 2002). Furthermore, lived experience cannot be separated from the context of time, which is not bound by a calendar or clock (Sohn et al., 2017).

The *world* existed prior to our entry and reflection upon it; we are part of the world and it is a part of us (Thomas & Pollio, 2002). The world is composed of two parts, the were and aeld (old), in essence meaning "in the time or age of man," and concerns the "organized totality concerning people or time" (p. 205). The body exists in the world within places of meaning, as the "physical matter of natural science becomes the special possessions and objects of some specific human life," these are the places and spaces that have meaning (p. 206). In the present

study exploring the lived experience of nurses caring for patients diagnosed with IVDU associated IE through the lens of phenomenology, the existential *world* of the nurse was opened for a moment in time allowing the researcher to see an unexplored phenomenon through the eyes of nurses working at the bedside and on the ground in the community.

The researcher listened to the nurses' words and then read them over and over waiting for the phenomenon to rise from the data, as "the end of the speech or of the text will be the lifting of a spell. It is then that thoughts about the speech or the text will be able to arise" (Merleau-Ponty, 1945/2012, p. 185). Per van Manen (2002), "the reader must become possessed by the allusive power of text—taken, touched, overcome by the adressive effect of its reflective engagement with the lived experience" (p. 238). The relevance of phenomenology to this problem of understanding nurses caring for IVDUs with IE is that it offered an avenue for "contemporary thoughts, not only in the area of the phenomenology and philosophy of mind, and philosophy of science, but also in regard to ethics in the most general sense" (Gallager, 2010, p. 184). In Chapter 3, the phenomenological research procedures will be fully described.

Statement of the Problem

Nurses are poised to deliver high quality holistic care to inspire and influence patients to improve treatment outcomes. Nurses encounter patients diagnosed with IE from IV drug use in both inpatient and outpatient settings. No scientific studies were found that illuminated the phenomenon of nurses caring for patients diagnosed with IE from IV drug use in Appalachia or elsewhere. This qualitative phenomenological study was conducted to fill a knowledge gap in addiction science.

Purpose of the Study

The purpose of this qualitative study was to gain an understanding of the meaning nurses ascribe to their experiences caring for patients diagnosed with IE from IV drug use in Appalachia. Participant experiences were explored through the lens of existential phenomenology employing the tenets set forth by Maurice Merleau-Ponty's philosophy (1945/2012) to elucidate what stood out to nurses when caring for vulnerable Appalachians diagnosed with IE, a serious infection.

Research Question

The research question for this study was: what is the lived experience of the nurse caring for patients diagnosed with IE from intravenous drug use in Appalachia? The researcher asked nurses to describe their experiences caring for these patients, asking them to describe what stands out to them, to allow the researcher to see the world through their eyes.

Conceptual Definitions of Terms

Addiction

Addiction is a major, long-lasting disease of brain reward, motivation, memory and related circuitry, should dysfunction occur in circuitry, biological, psychological, social, and spiritual symptoms may occur. Characterized by inability to abstain, behavioral impairment is present, craving, diminished recognition of major issues related to behavior, relationships, and dysfunction of emotional responses (American Society of Addiction Medicine [ASAM], 2011). Furthermore, addiction is not a term used solely for drug use, but includes other vices such as alcohol consumption, eating disorders, gambling, and tobacco use (Bartlett et al., 2013).

Endocarditis

Endocarditis is an inflammation of the inner lining of the heart's chambers and valves. If untreated, this infection may lead to heart rhythm abnormalities, blood clots, and heart failure. Alcohol use, poor dental health, and IV drug use are lifestyle choices placing someone at risk for endocarditis (National Heart, Lung, and Blood Institute, n.d.).

Illicit Drug Abuse

Illicit is defined as illegal or unlawful, forbidden by law (National Institutes of Drug Abuse [NIDA], 2018). Illegal drug use is consumption of drugs that have no medicinal use and are deemed illegal.

Intravenous Drug Use

Intravenous drug use (IVDU) is the act of injecting drugs into the vascular system. *Injection drug use* is the act of administering drugs by injection, the same definition used by NIDA (2018).

Opioid

Opioids are a class of drugs that include the illegal drug heroin, synthetic opioids such as fentanyl, and pain relievers available legally by prescription, such as oxycodone (OxyContin®), hydrocodone (Vicodin®), codeine, morphine, and many others, the same definition as NIDA (n.d.).

Physical Dependence

Physical Dependence is a "state of adaption that is manifested by a drug class specific withdrawal syndrome that can be produced by abrupt cessation, rapid dose reduction, decreasing level of the drug, and /or administration of an antagonist*"* (ASAM, 2001, p. 2). *Dependence* occurs when people no longer take the drug yet have bodily and mental symptoms of withdrawal,

such as muscle cramping, diarrhea, and anxiety (National Institute of Health. U.S. National Library of Medicine, 2018).

Stigma

Stigma is a set of negative attitudes and believes that motivate people to fear and discriminate against other people, the same definition used by NIDA (2018).

Substance Use Disorder

Substance use disorder (SUD) is the recurrent use of alcohol and/or drugs which causes clinical and functional significant impairment, such as health problems, disability, failure to meet work responsibilities, school, or home. The *Diagnostic and statistical Manual of Mental Disorders, Fifth Edition* (DSM-5), notes this diagnosis as based on impaired control, social impairments, risky use, and pharmacological criteria. SUDs are noted as mild, moderate, or severe, dependent on specific diagnostic criteria (Substance Abuse and Mental Health Services Administration [SAMSHA], 2015).

Aims

This qualitative phenomenological study employed four aims in the exploration of the lived experience of nurses' caring for patients diagnosed with IE from IV drug use in Appalachia:

1. To address gaps in addiction science research and knowledge regarding an unknown phenomenon;
2. To provide information that will add to addiction science and inform best nursing practice by elucidating an unknown phenomenon;
3. To recommend direction for future research regarding an unknown phenomenon; and
4. To inform nursing practice, nursing education, and health policy by describing an unknown phenomenon.

Assumptions

A literature review, reflection on researcher personal experience caring for patients with substance use disorder and partaking in a bracketing interview led to four assumptions related to this area of inquiry.

1. Patients with substance use disorder are stigmatized.
2. Caring for patients with IV drug use associated IE may cause nurses distress.
3. Caring for patients with IE from IV drug use may prompt nurses to advocate on the patient's behalf.
4. Caring for patients diagnosed with IE from IV drug use who are denied a valve replacement or other cardiac surgery may cause nurses moral distress.

Limitations

In qualitative research, there is no intention to generalize the study to a larger population, as participants in this study were selected specifically from the Appalachian Region. Nonprobability sampling was used, as participants were purposefully selected from the population of interest to explicate an unexplored phenomenon in a certain geographical region, Appalachia. In qualitative research, the sample sizes are small, and credibility of the findings is not driven by quantification, rather by the quality of data that was elucidated from participants. The credence of the findings is based on the richness of the data and whether or not the essence or meaning of the phenomenon was illuminated. Recruitment for this study was not particularly difficult, but there were nurses that appeared to shy away from being in a study, as the topic of caring for patients in Appalachia who contracted IE from IV drug use possibly made them uncomfortable. The nurses who participated were forthright and eager to tell their stories.

Delimitations

To illuminate the experiences of nurses caring for patients diagnosed with IE from IV drug use in Appalachia, recruitment consisted of inviting only nurses working inside the Appalachian region to participate. People can contract IE from mechanisms apart from IV drug use, such as tattooing, body piercing, tooth brushing, or having an implantable cardiac device placed. However, for this study, I recruited nurses with experience caring for patients who contracted IE from IV drug use to explicate the phenomenon of interest. Nurses self-reported caring for patients with IV drug use associated IE in Appalachia; no patient medical records were examined. The majority of nurse participants reported care experiences occurring within a hospital setting, as these were where most of the care exchanges occurred. However, there was one nurse participant that worked in public health, with care exchanges in the community or clinic setting.

Significance of the Study

This study is significant to the health and well-being of the 25 million residents living in Appalachia, particularly the 42 % of the region's population which reside in rural areas (Denham, 2016). Individuals living in Appalachia still endure age old stereotypical views of them as "ignorant hill people," as they are often depicted negatively (Denham, 2016, p. 94). This then becomes a twofold problem for patients with SUD, as they are then viewed negatively for their Appalachian heritage and their illicit drug use. Appalachians require a greater understanding of them as people who are naturally inclined to distrust strangers; however, once trust is established, they are warm and welcoming. Appalachians are less inclined to share personal information with nurses they do not view as "trustworthy or respectful" (Denham, 2016, p. 98).

The negative attitudes of nurses towards patients with SUD exposes the darker side of nursing that exists, as nurses sometimes bring bias into their care, stereotyping patients according to certain traits (Corley & Goren, 1998). It was Andrew Jameton who first described the 'dark side of nursing' as an absence or the opposite of caring. Humans are not capable of separating themselves from their "socialization and educational experiences" or their personal beliefs and societal values (Corley & Goren, 1998, p. 99), which then color their view of the world and certain behaviors. As noted earlier, health professional views of patients with SUD are largely negative (van Boekel et al., 2013) with nurses amongst the most punitive (Howard & Chung, 2000a; Howard & Chung, 2000b). These negative attitudes are concerning, as Appalachia has been profoundly affected by the opioid crisis, and the nurse patient relationship is paramount for patient healing (Travelbee, 1971).

Nurses are working in a time of "dramatic increase" in deaths that are occurring from IV drug use with rural Appalachia profoundly affected (Ferraris & Sekela, 2016, p. 677). According to Denham (2016) the essence of being Appalachian is often entwined with "family heritage and place," which in turn influences "beliefs, values, traditions, and behaviors of kin, past and present" (p. 97). Appalachian nurses working within the region may hold different views, beliefs, attitudes, and behaviors which may make them less inclined to "question behaviors, assess concerns, counsel, or refer for help," as personal experience of a phenomenon, such as abuse, may render nurses unprepared to address these concerns (Denham, 2016, p. 96).

According to the National Institutes on Drug Abuse (NIDA) drug addiction is chronic, and individuals suffering from addiction are prone to relapse as a result of long-lasting changes in the brain (NIDA, 2018). Recidivism, or the tendency to return to certain behaviors is a normal occurrence. For this reason, patients are susceptible to reinfection because of their continued

drug use and a propensity to not follow medical regimens and directions (Ji et al., 2012). Patients may have a lifelong struggle with drug addiction and nurses' words and actions may affect patient outcomes (Bauer et al., 2017). Velez, Nicolaidis, Korthuis, and Englander argued that non-judgmental attitudes are imperative to engaging patients in treatment (2016); as negativity may decrease a patient's sense of empowerment affecting health outcomes (van Boekel et al., 2013).

There is no time for negativity, as the days of patients diagnosed with IE from IV drug are numbered; according to Alpert (2016) patients had roughly 305.5 days to live from hospital admission to time of death. This is the reality, as mortality rates were reported at 25.5 % with an average age of death 40.9 years (Alpert, 2016). Deaths are the greatest cost to society, as more people are dying from the use of IV drugs (Tookes et al., 2015). Mortality statistics such as these should propel a nurse into action, as "the human need for succor and the duty to provide it should be as compelling to the nurse as a raging house fire is to the firefighter" (Olsen, 1997, p. 521). For this reason, it is imperative for nurses to have the wherewithal to build therapeutic relationships with their patients to streamline care delivery and improve their health outcomes (Denham, 2016).

By exploring the lived experiences of nurses caring for vulnerable Appalachians to better understand the nurses' perceptions, emotions, and concerns of the ethical dilemmas that surround the diagnosis of IE from IV drug use, nursing practice and patient outcomes may be improved. Nurses working within Appalachia are tasked with working with a marginalized vulnerable population to break down walls of stigma to connect with their patients to assist them onto paths of recovery. This is significant to nursing because the nurse voice concerning this unexplored phenomenon is notably absent from the literature. There were no studies, quantitative or

qualitative, found on this particular phenomenon in Appalachia or elsewhere. For this reason, it was imperative to examine this phenomenon through the eyes of nurses providing care to patients diagnosed with IE from IV drug use to elucidate an unknown phenomenon as lived by them. This study explicated an unexplored phenomenon and filled a knowledge gap in nursing science, adding to a body of addiction scientific literature. The findings will help guide nursing practice, education, and health policy.

Personal Interest in the Study

The researcher was working on a study exploring the experiences of informal caregivers of sepsis survivors' when introduced to the topic by her principal investigator and former advisor, Dr. Reba Umberger who thought this issue a pertinent dissertation topic. After the researcher delved into the extant literature to learn more and noted the gap in addiction science, coupled with the perception that the topic was inflammatory, she was captivated and determined to elucidate this phenomenon.

Summary

The experience of nurses caring for patients with SUD in the Appalachian Region who contracted IE from IV drug use was unknown. For this reason, existential phenomenology was used as a philosophical approach to study this unexplored phenomenon. This phenomenon was explored by the researcher to elucidate the meaning of the experience as lived by nurses caring for patients diagnosed with a serious cardiac infection contracted from IV drug use. Findings of the study will be presented after a review of pertinent literature and description of the study methods and procedure.

Chapter 2

Review of the Literature

In this chapter, the literature review performed for this study is presented. Search methods are discussed followed by a critique of the extant literature surrounding addiction. Finally, a summary of what is known and unknown about nurses caring for patients diagnosed with IE from IV drug use in Appalachia is presented.

Literature Search Methods

To understand the state of the science surrounding nurses caring for patients diagnosed with IE from IV drug use in Appalachia an exhaustive search of the literature was conducted. A comprehensive search of the literature was essentially discouraging, as most articles pertaining to IV drug use associated IE were from the medical community. A research librarian at a large southern university was recruited to help with the search and noted the nursing perspective on this issue as a definite gap in the literature, as no studies were found specifically on the lived experience of the nurse caring for patients diagnosed with IE from IV drug use in Appalachia or elsewhere.

With the paucity of research, the extant literature related to substance use was searched. Databases searched were CINAHL, PsycINFO, PubMed, Sage, and ERIC. The search engine Google Scholar was used frequently. In order to find and review the literature on nurses caring for patients diagnosed with IV drug use associated IE in Appalachia, key terms of addiction, substance use disorder, substance abuse, illicit drug use, substance misuse, substance use disorder, endocarditis, infective endocarditis, infected heart valves, heart valve surgery, nurse, nursing, recidivism, intravenous drug use and injection drug use, Appalachia, and rural were used in various combinations.

Research articles under five years were preferred; however seminal and older works were included, due to a paucity of research. The review of the literature identified quantitative studies, qualitative studies, and literature reviews examining nurses' experience caring for patients with substance use disorder (SUD). Literature reviews were not included in the literature review but were reviewed to enhance understanding when applicable. Articles from the medical community were reviewed along with anecdotal opinions to better understand the phenomenon for knowledge development, but not included in the review. The researcher also included her preliminary research into the history of substance use in America, drug classification and pathology, theorist, and a few noted addiction science researchers.

Historical Perspective of Substance Use in America

To understand the current phenomenon of nurses caring for patients with IV drug use associated IE in Appalachia, it is important to understand the history of drug use. According to Volkow, drugs and humans have intertwined for 200, 000 years (Volkow, 2014), as records of the use of "cocoa bean, tobacco, peyote, and mescaline" in rituals and ceremonies were recorded by early civilizations (Naegle, 1988a). People are naturally inquisitive and may try drugs out of curiosity or thrill seeking, as drug use is often derived from cultural and social norms or availability (Naegle, 1988a). Moreover, according to Volkow, drugs are sometimes used as a means of self-medicating for an underlying mental disorder, performance enhancement, or to simply alter the mental state (2014).

America's long history with opium dates back to our Colonial militias' reliance on gum opium in the Revolutionary War (Kandall, 2010). However, it was not until the mid-nineteenth century that opiates became problematic. The Civil War was thought to be a source of the problem and "addiction was known as the 'soldiers' disease' or the 'army disease' for a

generation after Appomattox" (Cohen, 2006, p. 62). Physicians treated various ailments from nervous conditions, sexually transmitted disease, and digestive disorders with opiates (Kandall, 2010), as there were limited panaceas of prescription medications.

Recreational drug use began with the Opium Wars of 1839 -1842 and 1856 -1860 which opened the Chinese market to the world. Chinese immigrants used opium as a means to relieve work-related stress; in time, Americans also began visiting opium dens (Kandall, 2010). The introduction of the hypodermic needle perpetuated the use of opiates even among health professionals (Cohen, 2006). A shift occurred in the sociodemographic of people who used drugs from predominate use patterns of "female to male, white to minority, southern rural to northern urban, and wealthy to poor (in other words, from mainstream to deviant) it became easier to mobilize America in a campaign to eradicate drug use" (Kandall, 2010, p. 119).

The first drug legislation was racially motivated (Cohen, 2006; Kandall, 2010) as drug control policies were instituted because of "white racial fears" (Cohen, 2006, p. 56). In an attempt to prohibit Caucasians from visiting Chinese opium dens, legislation was passed in 1876 in Nevada and 1882 in New York (Kandall, 2010). In addition to racial concerns, elements of sexism were problematic, as Kandall (2010) addressed sexist attitudes of physicians toward female patients. By 1912, all states with the exception of Delaware passed legislation concerning the consumption of either opiates or cocaine, or both (Kandall, 2010).

The 1906 Pure Food and Drug Act controlled the sale of patent medications. The Harrison Anti-Narcotic Act followed in 1914 coupled with two 1919 Supreme court decisions that declared the Harrison Act as constitutional and prohibited physicians from prescribing narcotics for addiction maintenance. The passage of this legislation criminalized drug use and evoked the anti-drug sentiments still in existence today, one hundred years later (Kandall, 2010).

Individuals who used alcohol or drugs to the point of intoxication were deemed as demonstrating deviant behavior, a "moral deterioration, eccentric and degenerate lifestyles or character flaws. Addicts were imprisoned, rejected by their families, subjected to punitive 'medical' interventions" (Naegle, 1988, p. 2).

Drug Classification and Pathology

In this section the researcher will describe drug classification and pathology of addiction. Drugs fall into three classes: *prescription*, *over-the-counter*, and *social drugs* such as tobacco (nicotine), alcohol, and caffeine (Naegle, 1988a). Drugs are either legal (licit) (nicotine and alcohol) or illegal (illicit) (cocaine, methamphetamines, marijuana, and heroin) or prescribed psychotherapeutic medications that are taken for non-medicinal purposes; examples are analgesics, stimulants, or benzodiazepines (Volkow, 2014). These drugs are easy to attain on the streets (Naegle, 1988a). People who use recreational drugs do not generally become dependent on drugs, rather it is a drug's availability, a person's genetics, history of drug use, stressors and life events that push an individual into a substance use disorder (SUD); it is the inability to self-regulate drug use that spirals an individual into a SUD and subsequent emotional distress (Koob & Le Moal, 1997; Koob, 2015). A person is first compelled to experiment with drugs, second to locate drugs, third, control over the amount and frequency of drug use is lost, and lastly, when access to drugs is prevented, a negative emotional state ensues (dysphoria, angst, and irritability); at this point addiction has transitioned into dependence (Koob & Simon, 2009).

The three stages of addiction are binge intoxication, withdrawal/negative effect, and a preoccupation/anticipation that worsen over time due to a lack of homeostasis, rather an allostatic dysregulation that occurs in brain reward and stress (Koob & Volkow, 2010; Koob, 2015). These stages align with the three stages of reinforcement which are positive, negative, and

conditioned. Positive reinforcement occurs in the binging phase (reward), negative reinforcement with negative emotions that occur from withdrawals, and the conditioned reinforcement when the iterative cycle begins again, as one is preoccupied with drug procurement and consumption, this is the craving stage (Koob & Le Moal, 2001). Neuroplasticity is involved in the transition to addiction as multiple brain structures in the mesolimbic dopamine system may begin to change along with "a cascade of neuroadaptations" (Koob & Volkow, 2010, p. 217). The mesocorticolimbic dopamine system is the center of positive reinforcement, along with areas of the basal forebrain, amygdala, and four key neurotransmitters: mesolimbic dopamine, opioid peptide, gama aminobutyric acid, and serotonin (Koob & Simon, 2009).

The pathophysiology of drug use is thought to be driven by emotions, as emotions cause us to feel (feeling states) and motivation is a state of persistence that drives us to act. The hypothesis according to Koob (2015) is that emotions act as alarms for which the brain has specific neurochemical neurocircuitry systems to buffer these emotions, especially during *hyperkatifeia,* which is the increase in emotional distress and pain that comes with withdrawal, or during abstinent periods of drug use. All "major drugs of abuse produce dysphoria during withdrawal;" this is known as the dark side of drug use and "observed with amphetamines, cocaine, opiates, alcohol, nicotine, and THC" (Koob & Simon, 2009, p. 3). Drugs induce powerful and emotional extremes from euphoria to "devastating negative emotional states that in extreme can create a break with homeostasis and thus an allostatic hedonic state that has been considered key to the etiology and maintenance of the pathophysiology of addiction" ensues (Koob, 2015, p. 83). Individuals with SUD live in fear of withdrawal as one participant richly described her experience as such (Velez et al., 2016):

> It's not just a fear; it's that you become physically, like, crippled and sick from the withdrawal of opiates and methamphetamines. Diarrhea, vomiting, sweats, chills—it's just like the flu times ten. I would rather go through childbirth, honestly, than withdrawing. So, it's not that I want to get high; it's that I have to. It's becomes a necessity, or I'm dying. It feels like I'm dying. (p. 299)

Patients are fearful that nurses will fail to detect their withdrawal symptoms causing them to suffer. For this reason, some patients with SUD delay treatment and prefer to take their chances on the streets (Monks et al., 2013).

Theoretical Models of Addiction and Nursing Theories Relevant to Care of Patients with Substance use Disorders

There are multiple theories and models of substance use disorder with which to explain, predict, and understand the disease. The initial endeavors into drug experimentation and recreational usage are generally benign until addiction begins when behavioral shifts occur, and controlling behavior becomes challenging (Volkow, 2014). According to Naegle, an authority within nursing, theories were developed to help explain substance use disorder, involving three themes: 1) person and family, which included biological, psychological, and family models, 2) environmental situational, best described as sociopsychological models, 3) multiple interacting factor models, which include interactive and Rogerian models (Naegle, 1988b). Individual/ family theories address "biophysiological makeup; personality and psychological state," such as genetic and biological models revealing predisposition to addiction (Naegle, 1988b, p. 3). Psychological theories include Freud's theoretical notion that people pursue euphoria to treat depression, or Rado's *id*, as a component of gratification or pleasure, arguing addiction is a disease (mental disorder). Family models of addiction are based on family health and dynamics,

with the social-psychological models, such as the problem behavior theory, demonstrating the power of social influence and consequences. The interactive and Rogerian models emphasize there are no specific factors to predict substance use only an interplay of social psychological dynamics occurring within the environment (Naegle, 1988b).

According to Naegle "interactive models, multifactorial, dynamic models have particular implications for nursing" as interactive systems align with the concept of health as existing on a continuum (Naegle, 1988b, p. 12). It is the consistent occasional exposure to addictive substances that makes addiction a possibility, as it is an interactive process between an individual's biologics and ecological factors (Volkow, 2014). According to Marcellus (2007) in the 1980s addiction theories began to highlight interactive factors of mind, body, and environment with the shift to health orientation models. The integrated approaches were to combine effective policies of control with prevention education and treatment knowledge (Marcellus, 2007). Harm reduction is a new theoretical concept incorporating "attitudes, programs, interventions and evidence-based drug policies aimed at reducing harm to people and communities" (Marcellus, 2007, p. 125).

Stigma is a mark of rejection that excludes the marked from society's inclusion, including those suffering from addiction (Goffman, 1963). *Stigma,* a Greek word denoting a visual sign or mark "cut or burnt into the body and advertised that the bearer was a slave, a criminal, or a traitor—a blemished person, ritually polluted, to be avoided, especially in public places" (Goffman, 1963, p. 1). The three marks of stigma are: 1) bodily disgraces, 2) blemish of character perceived as weakness, such as addiction, or 3) tribal stigma of race, faith, or nationality (Goffman, 1963). These markings relegate someone to being less than human. When

individuals are viewed as less than human; they suffer from discrimination reducing their life possibilities (Goffman, 1963).

Society then instructs a stigma theory to explain or justify the exclusion based upon dangers to society (Goffman, 1963). Society has expectations that form an individual's 'virtual social identity' versus their real identity or 'actual social identity' that allows society to categorize them (Bates & Stickley, 2013, p. 570). Stigma is debilitating, as an individual's opportunities are reduced, and personal achievement is affected with failure to recognize one's full potential (Bates & Stickley, 2013). Goffman (1963) addresses 'the wise' as individuals who are in close contact with the stigmatized population, as in working or relational situations (Bates & Stickley, 2013). Goffman (1963) opined health care professionals were among 'the wise' and capable of rising above stereotypical views due to their close working relationship with patients. Two relevant theories with which to examine the lived experience of nurses caring for patients diagnosed with IV drug use associated IE are Hildegard Peplau's interpersonal relationship theory and Joyce Travelbee's human-to-human relationship model. Peplau's interpersonal relationship theory has four crucial elements: mutuality, phasic relatedness, anxiety gradient, and uniqueness (Beeber et al., 1990). The essence of nursing care is the relationship between nurse and patient. Hildegard Peplau opined that nursing cannot occur apart from this relationship.

The four facets of the nurse patient relationship are two humans, one with a need, and one with expertise, who then come together (Peden et al., 2015). The nurse and patient meet as strangers and the nurse "accepts the patients as they are and interacts with them as emotionally able strangers and relating on this basis until evidence shows otherwise" (Peplau, 1992, p. 44). The interpersonal assumption is that what transpires between humans can be "noticed, explained, understood, and if detrimental changed" (p. 14). The interaction between nurse and the patient

significantly impacts a patient's well-being (Peplau, 1992, p. 14). Knowledge is the characteristic that makes the nurse patient relationship professional, as nurses possess "definable expertise" (Peplau, 1992, p. 14). Humans "merit all humane considerations: respect, dignity, privacy, confidentiality, and ethical care" (Peplau, 1992, p. 14). Conflict is possible, as "every contact between two human beings involves the possibility of clash of feelings, beliefs, ways of acting" (Peplau, 1952, p. xiii). The relationship passes through three distinct phases, orientation, working, and resolution (Peden et al., 2015). Forchuk challenged critics who argued that Peplau's theory was largely untested with vague postulates and assumptions, alleging this as a "major oversight since her work has undergone the ultimate test, implementation in nursing practice" (Forchuk, 1991, p. 54).

Joyce Travelbee (1926 -1973), a seasoned psychiatric nurse, educator, and writer developed her human-to-human relationship model, a middle range theory, based upon the work of Viktor Frankl's logotherapy (Travelbee, 1971). Travelbee (1971) removed status labels of nurse and patient from her model, replacing them with human. Transcending the need to label another, as key to the relationship, as a human is in need of attention, not a 'patient,' from whom nurses can emotionally detach (Peden et al., 2015). The phases of her theory include: the "original encounter, emerging identities, empathy, sympathy, and rapport" (Peden et al., 2015). Travelbee's theory was an early framework for patient centered care (Peden et al., 2015). This model acknowledges human appraisal and bias, need for professional reflection, nurse and patient working phase to overcome anxieties, examination of patient and nurse behaviors, and the work entailed in finding meaning in the illness experience for patient and family (Peden et al., 2015; Travelbee, 1969). Travelbee's work is not as well known, possibly related to her early death at 47 (Peden et al., 2015; Shattell et al., 2007).

Theories and models to understand substance use disorder are vast with differing views on how to guide and structure nursing care delivered to individuals with substance use disorder. According to West (2001) substance use theories should explain the mechanisms of addiction for the individual and greater societal level to better understand prevention and recovery. Moreover, behavioral level research will aid in informing social and policy interventions (West, 2001). The focus of this study was to understand the lived experience of the nurse caring for Appalachians diagnosed with IE from IV drug use. Theories that explain the intricacies of addiction and human interaction were valuable to understanding the nurse patient dynamic.

Noted Researchers on Substance Use Disorder

According to Naegle, the first addiction nurse was Florence Nightingale stemming from her work with British soldiers in the Crimean war. Nightingale recognized alcoholism as a disease derived from socioecological influences, as soldiers consumed alcohol to pass time, cope, and spend military earnings (Naegle, 1991). According to Woodham-Smith (1951) Nightingale developed behavioral interventions such as reading, games, and other pastimes to promote soldiers' health (as cited by Naegle, 1991). Moreover, Nightingale is a noted pioneer of nurse activism as she fiercely addressed social injustice (Peden et al., 2015). According to Woodham-Smith (1951) military authority preferred soldiers to drink instead of reading, as if they read, they would possibly get "above themselves" (as cited by Naegle, 1991, p. 124). Nightingale's efforts brought social and economic reform for soldiers as schools were opened, pathways for soldiers to send money home were instituted, recreation was provided, alcohol shops closed, and the "picture of the British soldier as a drunken intractable brute faded away never to return" (Naegle, 1991, p. 125). Nightingale recognized the stigma surrounding

drunkenness and successfully advocated for reform and humane treatment of those affected (Naegle, 1991).

A noted nurse researcher in the field of addiction and psychiatric nursing is Madeline Naegle, a professor emerita with New York University Rory Meyers College of Nursing (New York University Rory Meyers College of Nursing, 2017), and a psychotherapist with a private practice in New York City (Vourakis, 2017). Naegle is the founding editor of the *Journal of Addictions Nursing,* a quarterly nursing journal. Naegle has published "over 100 journal articles, book chapters, editorials, Op-ed articles and position statements," Naegle's experience is vast (Vourakis, 2017, p. 107). Naegle has been a stalwart for alcohol and drug education reform in the nursing curriculum (Naegle, 2002; Naegle 1994; Naegle, 1989), and addressing flaws with nursing roles in drug and alcohol treatment facilities and highlighting the need for competencies and knowledge of contemporary practice (Naegle, 2015). One of her latest works most closely aligns to the current study, the Implementation of the High-Risk Alcoholism Relapse Scale in a Liver Transplant Clinic (Zhou et al., 2015), which highlights parameters of patient selection for liver transplantation and relapse assessment of alcohol use, of which nurses have an integral role in screening and identification of patients at risk of relapse.

Another noted nurse researcher is Sherry Deren, a New York University College of Nursing Senior Research Scientist and adjunct professor. Dr. Deren has authored over 150 articles focusing on human immunodeficiency virus (HIV), aging, and IV high-risk drug use. Deren began her substance use research in 1975 (Koslowsky, & Deren, 1975), examined characteristics of female drug users (Deren et al., 1975), substance use in migrant populations (Deren et al., 2012), injection drug use and hepatitis C virus (HCV) (Guarino et al., 2015), sexual partners of people who use IV drugs (Deren et al., 1997), and a relatively recent work

highlighting context of substance use (Deren & Tross, 2016). Although Deren studies people who use IV drugs, her work highlights HIV and HCV.

Another noted researcher is Loren Brener, a Senior Research Fellow, Postgraduate Coordinator, Centre for Social Research in Health at UNSW in Sydney Australia. Her research focus is on vulnerable populations from sex workers to people who use IV drugs. Brener has highlighted prejudice in health care professionals' attitudes towards patients who use IV drugs (Brener et al., 2007; Brener & von Hippel, 2008; von Hippel et al., 2008), patient perceptions of discriminatory treatment by staff (Brener et al., 2014; Brener et al., 2010), needle sharing (Bryant et al., 2010), role of health provider attitudes towards people who use IV drugs (Brener et al., 2010), and stigma of HIV and Hepatitis C (Cama et al., 2015; Cama et al., 2015). Brener's work highlights people who use IV drugs focusing mainly on attitudes, stigma, HIV and HCV.

Dr. Bradley Mathers works with the Kirby Institute in Sydney Australia and works within two programs, the Public Health Interventions Research Group and the Justice Health Program. Dr. Mathers is a physician who has conducted extensive research with a focus on public health. Dr. Mathers is a lecturer with the Kirby Institute, with the Public Health Intervention Research Group. His addiction research highlights epidemiology on a global level, studying injection drug use, HIV, and other consequential harms of drug use. He was an advisor to UNAIDS and the World Health Organization (WHO) assessing epidemiology, services, and evaluation of outcomes. His work focuses on injury related to IV drug use from a medical perspective. Mathers has a global focus examining injection drug related infections such as hepatitis B and Hepatitis C (Nelson et al., 2011). His work highlights endocarditis as a consequence of IV drug use from a medical perspective, as noted in this systematic review of medical research (Larney et al., 2017). The paucity of research exploring IV drug use associated IE is a noted gap. There

were no works found specifically exploring IV drug use associated IE by addiction science researchers in nursing or sociology, a noted gap in the literature.

Review of the Empirical Literature

Noted themes from the literature search of extant literature were determinants of nurse therapeutic attitudes and their experiences caring for patients with SUD (Brener et al, 2010; Ford et al., 2008), impedance of nursing care when caring for patients with SUD (McCreaddie et al., 2010; Morgan, 2014; Morley et al., 2015; Natan et al., 2009); interpersonal challenges experienced by nurses caring for patients with SUD (Ford, 2011: Monks et al., 2013); lived experience of the nurses' role in substance use treatment facilities (Abram, 2018); substance use education experiences for nurses and students (Gerace et al., 1995; Horner et al., 2019; Howard & Holmshaw, 2010; Norman, 2001), nurse perceptions and descriptions of clinical experiences (McLaughlin et al., 2006; Neville & Roan, 2014), and nurse experience of patient agency, value based care, and addiction (Gray, 2014; Johansson; Wiklund-Gustin, 2016; McCall et al., 2018). There are noted study setting deficiencies in the literature as studies involving nurses caring for patients with SUD outside of the mental health environment were notably sparse.

Determinants of Nurse Therapeutic Attitudes Toward Patients with Substance Use Disorder

For this theme, two studies were analyzed to gain an understanding of attitudes nurses have towards patients with SUD, specifically attitudes that influence care decisions. Ford, Bammer, and Becker (2008) conducted a cross sectional multivariate study in Australia to determine factors that influenced nurse's intention to engage with patients who use illicit drugs. The researchers addressed this intention to engage as the therapeutic attitude. The sample consisted of 1605 nurses who completed questionnaires that included two scales, the Alcohol and

Alcohol Problems Perception Questionnaire (AAPPQ), modified for illicit drug use and renamed the Therapeutic Attitude Scale, and the Disapproval of Drug Use Scale (DDU). Other measures included nurse personal characteristics of (age, sex, education level, religious affiliation, church attendance, substance use history) and professional factors of (basic role requirements and workplace factors). Basic role requirements comprised three facets 1) role support, 2) hours of drug and alcohol education and the timeline when their last SUD education was received, and 3) professional experience working with SUD population. Workplace factors included nurse practice group (i.e. medical surgical, critical care, pediatrics, education), years of nursing experience, job status (nurse clinical level, education, management, research), and sector of employment, whether public or private.

Of these, Ford et al. (2008) used regression analysis to discover that role support (a professional practice factor) had the strongest association with nurses' therapeutic attitudes (β= 0.333), followed by an interaction between role support and workplace education (β= 0.275), and nurse experience working with patients with SUD (β = 0.260). Role support was operationalized as the ability of the nurse to easily find someone to help them manage personal or practice issues related to patient care (Ford et al., 2008). The greater the disdain the nurse had for illicit drug use, the greater the decrease in therapeutic attitude.

This study demonstrated that nurses struggle in their professional role caring for patients with SUD due to a lack of role support, as some nurses noted it nonexistent, and education (preservice and workplace) as minimal, as only 25 % of the sample felt adequately educated to care for patients with SUD. Moreover, only 30 % of the sample were motivated to care for this population. Caution is warranted in interpreting these results as the response rate was low at 50 % and largely gynocentric, as the sample was 94 % female. The cross-sectional design was a

limitation as it measured only one point in time. The reliability of the modified AAAPPQ and the DDU tools was established; however, validity measures were not addressed. It is important for nursing leadership to acknowledge that education is vital for the nurse, but it is ineffective as a sole strategy to improve therapeutic attitudes until combined with role support.

Brener, von Hippel, Kippax, and Preacher (2010) conducted an exploratory study in Australia to gauge negative attitudes and behaviors of health care workers towards patients who use IV drugs. Of the 60 health care workers interviewed, 37 were nurses, 21 doctors, and two medical students. Participants were recruited from substance use specialty areas, needle and syringe programs, methadone clinics, and treatment facilities for drug use in Australia. The researchers developed two tools specifically for the study: a scale measuring negative attitudes and behaviors, such as avoidance of patients who use IV drugs and a scale measuring the perceived controllability of drug use. Other measures included the Wilson Conservatism Scale (WCS) which measured social conservatism, two items measured whether patients who use IV drugs mental and physical health were associated with their drug use, a 4-item worry scale and lastly, nurses were queried if patients should disclose their hepatitis C status.

The researchers discovered that health worker conservatism predicted the prevalence of negative attitudes and indirectly predicted views that patients who used illicit drugs were responsible for their condition. However, once "drug use controllability was controlled for in path analyses" (p. 1012) findings suggested that conservative health care workers were no more negative towards patients who use IV drugs as their liberal counterparts. Health care worker negative attitudes were correlated with worry and the opinion that patients who use illicit drugs should disclose if they were infected with the hepatitis C virus. Most concerning is that when health care workers viewed drug use as under the control of the patient, the patient's medical

problems were attributed to drug use. Caution is warranted in evaluating results as the exploratory study design was a weakness. Data collection was self-report which possibly introduced bias. The Cronbach's alpha of the researcher constructed tool of negative attitudes and behavior attribution was low, calling reliability of the tool into question and threatening the validity of the study. Although endocarditis was not highlighted in the study, the study supports that individuals who use IV drugs may have their conditions dismissed as health care providers attribute the disease to their drug use, of which they are believed responsible, which may influence treatment decisions.

In summary, these research reports highlight the struggles nurses face in caring for patients with SUD. Nurses feel unprepared and unsupported in their role, as education was minimal and role support was not always available. However, it is important to note that education is a strategy, but the provision of role support is paramount to have an effect on nurse therapeutic attitudes (Ford et al., 2008). Attributing patient illness to a patient's drug use is troubling (Brener et al., 2010), as it is plausible that nurses may dismiss patient symptoms, possibly affecting patient outcomes.

Impedances of Nursing Care Delivery to Patients with Substance Use Disorder

Natan, Beyil, and Neta (2009) developed a questionnaire to test the theory of reasoned action to examine Israeli nurses' attitudes and their perceptions of the care they would deliver to patients with SUD. For the correlational study, 135 registered nurses were recruited, from "departments of internal medicine," the sample was 85% female, average age of 39 years, and an average of 15 years of nursing experience. The theoretical concepts of the theory of reasoned action include: behavioral attitudes, gauging whether performing a behavior will be good or bad, subjective norms (an individual's perception of the views of others), social pressure, behavioral

intentions, either to perform or avoid particular behaviors, and the target behavior as the intended response.

Nurses held stereotypical views that patients with SUD were violent and of lower socioeconomic status, dirty, contagious, uncultured, scary, dangerous, and encompass weak character. A negative correlation was noted between nurses' level of stereotyping and their perception of the actual care they would deliver, as noted by the researchers as actual behaviors ($r = -0.32$, $p < 0.01$). Although there were no actual nurse care delivery behaviors observed by the researchers, only the quality of care nurses speculated they would provide to patients with SUD was perceived to be of lesser quality. Nurses in this study reported feeling confident and equipped to care for patients with SUD but acknowledged caring for them would make them uncomfortable and concerned of contracting HIV or HCV.

In addition, nurses held moderate views that patients with SUD were difficult and upset the dynamic of the floor (Natan et al., 2009). A negative correlation was noted between nurses' views of patients with SUD as difficult patients and their perceptions of what their actual caring behaviors would be ($r = -0.28$, $p < 0.001$). Nurse attitudes and behaviors were significantly correlated ($r = 0.61$, $p < 0.05$), thus the stronger or better their attitudes, the greater their perceived intention to provide higher quality care to the patient. The researchers suggest guest lectures and workshops as strategies to improve nurses' attitudes and intention to provide quality care. These findings suggest nurse attitudes may affect the actual care nurses provide. Results should be interpreted with caution as there were study weaknesses noted, such as self-report bias with possible social desirability of responses as a possible confounder.

Similarly, Morgan (2014) conducted a grounded theory study to examine patients with SUD behaviors and the subsequent delivery of nursing care in pain management. This study was

an extension of a previous grounded theory study by Morgan in 2006 where 14 men and 4 women with chronic pain and a history of SUD were interviewed with a model developed, knowing how to play the game. For the 2014 study, Morgan recruited 14 nurses from an urban public hospital where she conducted two focus groups using a semi structured interview technique. Morgan showed the nurses the earlier model on how patients know how to play the game to obtain pain relief, and then asked the nurses to comment. From this study, a tentative model was constructed, nursing attitudes toward patients with substance use disorders and pain. The model consisted of three pathways stemming from two core categories of labeling or not labeling pain behavior and encountering barriers. Nurse attitudes towards pain, addiction, and behavior of patients while in pain are influencers that either cause a reaction to a behavior or an understanding of the behavior which then segues into three care pathways: 1) reaction to the behavior or labeling the patient behavior, encountering barriers, and then abandoning attempts to manage patient pain, 2) understanding the behavior, encountering barriers, pushing through the barriers to reach the patient and treat the patients pain accordingly, or lastly, 3) understanding the behavior and moving or working around the barriers to go directly to the patient and treat their pain. These findings suggest that nurse attitudes towards pain and addiction and patient behaviors influence the care that patients with SUD receive.

Study findings suggest that nurses find patient behaviors to pain particularly frustrating. This was a common theme as nurses described patients with SUD as particularly demanding which affected the care they receive, as one participant stated, “they’re very demanding…very difficult to please,” and “when you yell at your nurse, or scream at your nurse, how do you think they’re going to treat you?” (p. 170). It is this reaction to the behavior that is problematic as interpersonal challenges place nurses at a cross road experiencing “this negative feeling, it’s hard

to give good care, very hard, so I try to find ways to justify their behaviors, so I can really work with them" (p. 171). Nurses who encounter barriers and develop strategies to circumvent them demonstrate a higher level of patient centered care, understand the significance of the nurse patient relationship, and view pain management as a component of quality care.

The Morgan model needs further testing to develop it as a practice model, but it has potential future applicability to nurses caring for patients with SUD to understand nurse care decisions. This study should be viewed with caution as transferability outside of pain management is questionable. The sample was predominately female with potential for gender bias from gynocentric views. Another noted weakness was that focus groups may induce bias, as domination of conversation may occur, or conversely inhibit people from speaking openly in a group setting. The researchers suggested guest lectures and workshops as potential strategies to improve attitudes and nurse intention to provide quality care. The study is valuable as it presents a potential model to gauge nurses' ability to work through behavioral barriers to effectively care for patients diagnosed with IE from IV drug use in Appalachia as it is essential to understand the nurse patient care dynamic to discover facilitators, barriers, and strategies to help nurses circumvent these barriers.

Similarly, Morley, Briggs, and Chumbley (2015) used descriptive phenomenology to conduct a study based upon the philosophy of Edmund Husserl. Convenience sampling was used to recruit five nurses who were studying at King's College of London. The study explored the lived experiences caring for patients with SUD in pain using guided interviews. The Giorgi five step approach was used to analyze data with five themes emerging: 1) patient characteristics, 2) patient management, 3) pressures and targets that affect pain management, 4) psychosocial

issues were prevalent, and 5) education and support needs for staff. Of note, these are not evocative theme names as expected in phenomenological research, a noted weakness.

The first theme of patient characteristics identified by Morley et al. (2015) entailed three subthemes 1) patients with SUD in pain are "difficult," 2) patients with SUD are noncompliant, and 3) patients with SUD are not all the same. In describing their experiences, nurses opined that patients were "difficult, manipulative, aggressive, noncompliant, distrustful, unhygienic, and generally challenging" (p. 704). Nurses agreed that patients are difficult, noncompliant, as evidence by this quote:

> I think that it is difficult sometimes to take away the fact that this gentleman was quite a difficult character, quite manipulative. He would shout at you if you didn't give him pain relief immediately…he was quite a difficult character and it is a little difficult to specifically focus on his pain relief because that was all part of this personality, manipulation and that sort of thing. (p. 704)

However, nurses noted that not all patients were the same, as "he just wasn't acting normally, he was high, he was drunk and he was also in pain, so it was hard to see where one thing stopped, and the next thing started. He was just a strange man" (p. 705). The second theme patient management entailed five subthemes: (1) experience aids better management, (2) doing the right thing, (3) discrepancies in management between doctors and nurses, (4) suspicions of drug-seeking behavior, and (5) clinical issues (tolerance and hyperalgesia). This theme described nurse experience as instrumental to pain management and the need for both the patient and the nurse need to do the right thing. Of note, nurses perceived patients seeking treatment for addiction as doing the right thing, whereas the nurse doing the right thing was not well explained by the researcher. Continuing with subthemes of theme two, nurses addressed their feelings of

powerlessness in treating patient pain, as doctors made the ultimate pain decisions about pain management. Furthermore, doctors were concerned with fixing patient addiction instead of treating a patient's pain. Lastly, the second theme noted nurses are suspicious of drug-seeking behaviors and recognize clinical issues surrounding tolerance and hyperalgesia in pain management. The third theme, pressures and targets affecting pain management had two subthemes, nurses' workloads and staffing, as nurses discussed workloads and staffing in regards to caring for patients with SUD, as they were perceived as demanding of nurse attention and time, as one nurse participant noted:

> I guess their [staff nurses] reserves for dealing with that patient who does appear to be difficult and not wanting to engage and wanting things a very particular way and not able to have any room for maneuver is inevitably going to be the one they will avoid and spend less time with, but you know they are the one who needs the more time-spending because they have those difficulties and you are stuck in that paradox. (p. 707)

Another subtheme of theme three addressed external pressures, as nurses identified these as exacerbating views of SUD patients as non-compliant and thus taking up valuable bed space, this theme included the notation of financial pressure as detrimental to care with decreased teaching time and "policies with an emphasis on avoiding hospitalizations," as "the doctors have got targets they have got to meet and an IV user comes in and sits in a bed for weeks on end" (p. 707). The fourth theme of psychosocial factors had two subthemes: (1) psychological factors and social factors which highlighted that nurses were cognizant of patients with SUD complex social and psychological needs, for which patients used drugs as a means of coping, or that the hospital was viewed as a "safe, warm, clean, and secure" space for patients with SUD, highlighting the despair of some of their situations (p. 707). Theme five had two subthemes, discussion of

patients with SUD in pain on compulsory pain study days and value of the pain team, which addressed communication as problematic and that training was needed to improve exchange of information. Nurses felt that doctors should attend the same mandatory pain management education as they do and work together to develop models of care.

In a constructivist grounded theory study in the United Kingdom, McCreaddie, Lyons, Watt, Ewing, Croft, Smith, and Tocher (2010) interviewed 11 people with SUD and 22 nurses from acute care settings to understand the phenomenon and processes of "perceptions and strategies of drug users and nurses with regard to pain management" (p. 2731). The researchers contend the constructed theory is based upon the nurse and patient with SUD struggle with moral relativism, implying there are no certain codes or behaviors. Morality is relative and gauged against the particular backdrop of "social, historical, and situated contexts," with the researchers' argument that moral relativism is the essence of the phenomenon describing the basic social processes (p. 2734). A struggle ensues between nurses and patients with SUD in regard to "moral relativism and their respective routines and rituals" while managing pain in acute care settings. (p. 2374).

Patient and nurses' expectations of pain management were conflicted as patients with SUD "expected health care staff to 'show compassion' and hospitals to be there 'to help'" (p. 2734), whereas nurses were less engaged with noted diagnostic pessimism and poor past experiences that shadowed present care delivery. It is the maladaptive behaviors of patients with SUD that may lead to "ethical erosion," (p. 2736) as nurses become less tolerant, which possibly intensified stigma and sensitivities experienced by patients with SUD (McCreaddie et al, 2010). Patients with SUD perceive negative attitudes or stigma directed toward them from staff and

developed sensitivities, operationalized as an emotional state of unease that may occur when one feels stigmatized. One patient noted:

> You know they seemed to kind eh…they seemed. Like the older people in the ward, they seemed to help them when they pressed the buzzer. But, with me and this other boy like. 27 times we counted how long the buzzer beeps fur and it was 27 times, and I think it beeps once every 30 seconds, so it's quite a long time for them to answer. (p. 2736)

A nurse administering methadone to a patient with SUD said "right blue eyes here's your green monster" to which the patient responded "I take it you're anti-drugs are you? Well dinnae treat me like a piece of shit!" (p. 2737).

According to the researchers, patients with SUD enter a 'straight place' or a place without addiction, a normal place, which comprises three grounding dimensions:1) 'pick a stitch,' which was an essential for the nurse to realize the patients difficult past experiences and the potential for the patient with SUD to "unravel in such an unfamiliar setting and state" (p. 2736), 2) patients with SUD 'feeling like a piece of shit' had two components as nurses need to pay attention for signs and symptoms of withdrawal and stigma, either felt or overt, and 3) anxiety that is either present prior to admission, a consequence of admission, or a sign of withdrawal. Nurses must remember they are in their normal environment, whereas patients with SUD are not, and both have routines and rituals. People with SUD have chaotic routines and rituals to prevent withdrawal. However, it is these routines and rituals that are the fulcrum of patient care, as patient's normal routines are chaotic, illegal, and misaligned with the prescript hospital routines.

There were noted limitations as interviews with the nurses, in addition to the focus groups, may have yielded richer data. The researchers reached data saturation for theoretical

development but argued that more time may have yielded richer data. McCreaddie et al. (2010) opine that nurses need to return to the basics of conversation and human interactions and reflect on the art of connection to improve patient outcomes. This model of pain management evokes thought into discovering the mutual ground of frustration experienced by both patients with SUD and nurses. The theoretical concepts did not address barriers or facilitators of pain management, rather they explain fundamental frustrations of nurses caring for patients with SUD in the acute care setting. The proposed theoretical concepts need refinement and testing.

In summary, these studies highlight nurse negative views of patients with SUD as difficult and address potential consequences to the quality of care nurses provide (Morgan, 2014; Natan et al., 2009). Negative attitudes are a noted potential detriment to patient with SUD outcomes. McCreaddie et al. (2010) highlight moral assumptions that are theorized to form the basis of care, while Morley et al. (2015) addressed psychosocial and psychological barriers addressing the need for education.

Interpersonal Challenges Experienced Caring for Substance Users

Ford, Bammer, and Becker (2008) conducted a cross-sectional survey study, as discussed, using both qualitative and quantitative methods to examine the therapeutic attitudes of 1605 nurses (2008). Therapeutic attitude was operationalized as the intention to engage based upon a nurse's commitment to care focusing on motivation, satisfaction, self-esteem, and self-assessment of their nursing role, including the ability to perform the role and perform it competently. The Australian Capital Territory (ACT) Nurses Registration Board Roll was the sampling frame of the qualitative study to explore the experience of nurses' care of patients using illicit drugs. Ford (2011) examined qualitative data from the previous study conducted by Ford, Bammer, and Becker (2008). For the qualitative study, the subsample consisted of 311

participant nurses, 98% female with an average age of 42 years. In the initial survey study an open-ended question was included which queried nurses on impedances to providing care to patients who use illicit drugs. A key theme developed that highlighted the interpersonal challenges nurses face when caring for patients who use illicit drugs.

This theme of interpersonal challenges had three subthemes emerge: 'violence as an impediment to care,' 'manipulation as an impediment to care,' and 'irresponsibility as an impediment to care' (p. 243). Nurses feared for their safety feeling "threatened and at risk," which affected their views, as patients were noted to be violent and prone to "change/snap/flip at any time," with "outbursts – physical and verbal" (p. 244). The presence of visitors posed additional challenges complicating an already uncomfortable situation. The researchers discovered nurses sometimes were making compromises based upon fear, weighing risks and balances, negotiating out of safety concerns for all.

Manipulative behavior was problematic as nurses did not trust patients' complaints of discomfort, as example. If patients had visible injuries these were easier for nurses to treat, as there was a valid reason for pain. Participants described patients with substance use issues as dishonest, lying, deceitful, cunning, and lacking integrity:

> They say they want to get off it [drugs] and the first chance they get they go outside and get a hit from their 'friends'… they lie to me and play me for a fool. My experience with heroin users has given me this attitude. Whenever a patient is allowed to go and meet a friend out of view of the staff it is pointless to help them in the hospital. (p. 245)

The researchers discovered that nurses struggled with patient's irresponsibility for their health. Annoyed, nurses were bothered with patients with SUD disregard for their own health, as this "lack of responsibility for their own health caused a high demand on nurses' time" (p. 245).

For this reason, nurses preferred patients who used illicit substances be cared for in specialty areas due to patients with SUD demanding and aggressive nature. Participants viewed it inappropriate and endangering to have patients with SUD near elderly patients. Of particular concern, is that nurses acknowledge that they lack knowledge caring for this population making the care they give questionable. Limitations of this study were the low response rate with only 311 participants of the original 1605 nurses completing the open-ended question, a 19 % response rate. Gynocentric views were possible with the 98% female sample.

This study highlighted that nurses' experience a sense of vulnerability, as they fear violence, guard against manipulative behavior, and are frustrated over patient's lack of responsibility for their health. Patients with endocarditis may face judgement for their illness with endocarditis attributed to their addiction and dependence. This may color the nurse's view of this particular population and foster attribution of symptoms to drug use resulting in less than optimal care. This may be problematic with a diagnosis of endocarditis if a decision to treat medically or operate is based upon negative attributions.

Monks, Topping, and Newell (2013) conducted a grounded theory study in the United Kingdom conducting 41 semi structured interviews with 29 nurses and 12 patients. From these interviews two sub-categories emerged, 'lack of knowledge to care' and 'distrust and detachment' that converged to form dissonant care. Nurses perceptions of patient with SUD were largely negative and when combined with a lack of knowledge, the care became disengaged and dissonant. Negative attitudes towards substance users were reported as intense with one nurse participant stating that most nurses would say they "think they're a waste of space," and a patient participant stated that a nurse asked him, "why should we waste a bed on you, you type of

people?…so that was it, I went nuclear and became verbally and physically violent" (Monks et al, 2013, p. 940), and therein lie the consequences of negative attitudes.

The more the nurse disengaged, the patient's aggressiveness increased. Nurses noted working with patients with SUD as emotionally draining due to the unpredictability of the patient and the interference with the floor's rhythm. Nurses "felt powerless especially when conflict, disruption, and violence started to escalate in the confines of ward" (p. 942). The combined lack of knowledge and negative attitudes was a noted barrier to care. Nurses in this study were detached and disengaged, caring for "aliens," as nurses were detached (p. 942). "Drug abusers are the bottom of the heap, they get seen to last," as nurses preferred to care for patients with what they perceive as more serious health issues (p. 942). Nurses in an effort to protect themselves limited interactions to reduce the chance of conflict and violence, sadly, "patients admitted due to complications of their drug use were prejudged and this impacted the care they received" (Monks et al., 2013, pp. 943- 945).

Lived Experience of the Nurses' Role in Substance Use Treatment Facilities

There was only one study found that explored the lived experience of nurses working in a substance use treatment center, a hermeneutic study conducted by Abram (2018) to understand the role of professional nurses working within substance use treatment facilities. The study employed a phenomenology approach using Heideggerian traditions. Nine nurses from the Mid-Atlantic area, two males and seven females, age 27 to 60 years of age with one to 37 years of professional practice were recruited. The practice settings were diverse from medical monitoring of withdrawal, detoxification, inpatient rehabilitation, outpatient, and opioid treatment programs. Interviews were conducted until data saturation reached with three major themes emerging: 1)

defining the role for self, 2) learning the role, 3) and navigating with ease in an unchangeable culture.

The first theme derived from the need of nurses to redefine their role to help them make sense of what they perceived as a devaluing of their role. Nurses assumed multiple roles within their facilities: medical tasker, completing medical skills and tasks; overseeing the structure entailed being the rule enforcer; custodial oversight of laundry, medical supplies, and nutritional resources; cheerleaders, as one participant noted "I definitely peddle hope" (p. 4), comfort in the handmaiden role, as nurses viewed their role as subservient to physicians, "we're the eyes and ears of the doctor" and "of course, the doctor's the one that's overall in charge of the whole aspect. Everybody feeds into the doctor with their individual aspects of their role" (p. 4).

Theme two, learning the role, entailed two subthemes: 1) nurses coped by supporting each other by allowing each other to vent and then validating feelings, as "it's not so much physical like in the other nurse world where it's physical on your body… it's just emotionally draining" (p. 5); 2) experience was noted as the greatest teacher, "I was pretty clueless… but I really learned by doing," by a "fight on the ground" learning experience (p. 5). Nurses buffered their deficiency by drawing upon "value on their life skills, background, and unrelated job experiences" (p. 5). Learning was informal, as nurses used colleagues as resources, educated themselves, and spent time with patients.

Theme three entailed navigating with ease in an unchangeable culture with subthemes: 1) nurses embraced rigid boundaries; 2) patient relapse affected job satisfaction, 3) reflecting on contemporary roles, nurses were focused on tasks and unaware of a contemporary progressive role of the nurse acting as a patient advocate. This study highlighted a broader view of the nursing role within treatment facilities; particularly concerning was the view of the nursing role

as handmaiden, as this is digressive to modern care and contemporary practice. This study highlighted a potential for lack of advocacy in treatment of patients with substance use disorder, which is a major concern. Furthermore, research highlighted the lack of educational preparation caring for patients with SUD, as educational preparation was lacking leaving nurses to learn this role in situ.

Need for Substance Use Education for Nurses and Students

Gerace, Hughes, and Spunt (1995) conducted a project stemming from the National Institute on Alcoholism and Alcohol Abuse (NIAAA) and the National Institute on Drug Abuse (NIDA) national initiative to improve "education and clinical training in substance misuse screening, assessment, intervention and referral" (p. 286). This was a three-year program with the goal of improving practice and especially recognizing and responding to patients with SUD. Thirty-two advanced clinically positioned nurses known to be experts in the clinical unit were recruited as the core group. Nurses completed two days (one week apart) of substance use training per year for three years at a large urban university hospital. Focus groups were conducted to better understand problems encountered by nurses working with substance using patients. Evaluation instruments were Substance Abuse Knowledge Survey (SAKS), Substance Abuse Experience Survey (SAES), and Substance Abuse Attitude Scale (SAAS) these measures were to provide an inclusive evaluation of influential factors of responses to patients with SUD. Nurses were concerned with 1) recognition and evaluation of substance use problems, 2) handling problems once identified, such as how to talk to patient about effects of substance use, withdrawal management, and working with "manipulative behaviors" to procure drugs, 4) helpful responses and ability to deal with their feelings toward pregnant women or parents of children, and 5) dealing with peer substance use effectively. The program employed a pretest and

posttest evaluation, and scores of treatment optimism significantly rose ($t = 2.09$, $p = .05$) post educational encounters. The educational intervention was successful as nurses' confidence, knowledge, attitudes, and perception of clinical skills were transformed. The researcher suggested large scale changes in the way of education reform for all levels of nurse curriculum including clinical placements of students working with skilled substance use preceptors. Practicing nurses should have continuing education to enhance their practice, calling on licensing and accrediting bodies to intervene.

Horner et al., (2019) conducted an interview study to explore the attitudes, perceptions and training needed by nurses working in tertiary care hospitals in Boston, Massachusetts. The researchers conducted 22 in-depth interviews with nurses and six themes emerged: 1) stigma, 2) safety and security, 3) assessing and treating pain, 4) communication between providers, 5) feeling burnout, and 6) opportunities. Transitions from the hospital to the community. Regarding theme one, nurses were aware of stigma patients faced, as well as the negative impact of stigma on delivery of care. Stigma is sensed by the patient, and then "be a little meaner or less kind to the nurses in return" (p. 5). Theme two described the need for security to quickly help deescalate situations, as patients or visitors exhibited aggression. Nurses called security frequently for bag checks and such, and female nurses feared for their safety. Theme three assessing and treating pain addressed the conflict over pain management, as a source of contention, a noted "clash" (p. 6). Theme four noted that nurse and provider communication was sufficient, but nurses were bothered by "staff-splitting" where the "patients use one nurse's words or actions against them to vie for increased access to pain medications" (p. 7). Theme five is particularly concerning as nurses experienced burnout, feeling "hopelessness and apathy" experiencing "frustration and exhaustion" in caring for a "demanding" population (p. 7). Nurses noted the "exasperation" in

"watching young patients who have OUD [opioid use disorder] cycle in and out of the hospital," care was deemed as "futile." (p. 8). Theme six noted opportunities and transitions from the hospital to the community, highlighting the importance to have a safe place to send these patients. Standardizing care, such as creating a pain contract was a way for the nurses to "clarify expectations," (p. 8). One neglected area has been role support and interpersonal emotional support, this side "has to be taken into consideration more," as addiction in health care is prevalent and a concern (p. 90). Nurses wanted to learn more about how to educate their patients, as well as to have more educational opportunities in general. This study was paramount to understanding burnout in relation to caring for patients with SUD.

Howard & Holmshaw (2010) conducted a mixed methods study to explore the "perceptions and experiences of inpatient mental health staff in supporting inpatient service users experiencing both mental health problems and illicit substance use" in the United Kingdom using the Co-occurring Mental Health and Illicit Substance Use Perceptions Questionnaire developed by the researchers (p. 863). Participants were recruited from nine different mental health wards; eighty-four multidisciplinary staff completed the questionnaires and ten staff submitted to a semi structured interview. The questionnaire included the Drugs and Drugs Problems Perceptions Questionnaire (DDPPQ) which ranged from 22 to 154, with higher the number, higher the negative attitude. The DDPPQ scores were assessed using means and standard deviations. The researchers conducted Independent Samples *t-test* participants who received training score was ($M = 63.6$, $SD = 16.2$) and participants who received no training on illicit drug use ($M = 80.01$, $SD = 17.9$; $t = -4.15$, $p = 0.000$), which revealed that negative attitudes were less for individuals who had received training, such as workforce development, "'on the job training," preliminary training, basic drug awareness, and identification and management of substance misuse (Howard

& Holmshaw, 2010, p. 867). Interview data revealed seven themes: 1) working with illicit substance users, 2) team attitudes, 3) team communication and problems solving within multidisciplinary meetings, 4) trust policies and local area protocols, 5) concerns with legality, 6) staff support structures, and 7) training.

Theme one describes that when working with patients with substance use disorder, participants were less engaged with patients with co morbid mental health issues and substance use disorder, as "because if clients don't want to give up drugs, no matter what advice they're given, they don't want to give up so they won't give up." Theme two denotes that pejorative views stem from the "generalized view, like a societal view, then personal and professional views," overt dissatisfaction was common. Theme three noted the role of team communication and problem solving within multidisciplinary meetings, such as individuals in their group had their opinions, but no one asked why someone chose to use drugs. A lack of follow through or consistency was noted as problematic as sometimes discussions could "get forgotten" (p. 868). In theme four, participants expressed confusion regarding trust policies, as well as local area protocols in the forbearance of people taking drugs. Theme five noted a concern with legality, as if it were known drug use was occurring and nothing was done, managers were sentenced in the past. Participants in this study were afraid of losing their license. Theme six, staff support structures, noted a dissatisfaction with higher levels of support, such as "not being able to access a supervisor with knowledge within the area of illicit drug use." Theme seven, training, described participants' belief that more training would improve performance, increase knowledge and skill development. In summary, results from Howard and Holmshaw's (2010) mixed method study indicated that training improves attitudes. In addition, participants noted a need for training and improved access to support staff structures, and improved multidisciplinary

decision making processes. Results should be viewed with caution as the response rate was low at 36%, as only 84 questionnaires out of 270 distributed were returned. The study took place within the confines of mental health care settings limiting transferability to other settings. In addition, this study was not focused exclusively on nurses, as only 41 of the 84 participants were nurses.

Norman (2001) conducted a simple descriptive survey study in Australia on (n = 55) third year nursing students using a semantic differential method, six paired- word opposites that related to personality or behavioral attributes; the paired words were placed on a score card, using a Likert scale from 1 to 7, gauging one as smart to stupid, strong to weak, pleasant to unpleasant, compliant to non-compliant, considerate to selfish, responsible to irresponsible, deserving to undeserving, and blameless to blameworthy. Students were largely negative toward patients with SUD, particularly a person's behavior or personality, as 65% of the students perceived people who use illicit drugs as "stupid," 63% thought them weak, 43% thought them unpleasant, and 53% of the respondents thought them non-compliant, 58% thought them selfish, and 79% thought them irresponsible, demonstrating largely pejorative views. These results need to be viewed with caution as there were no reliability and validity measures noted, and response bias may have been a reality as these respondents were students enrolled in a nursing course. However, this study indicated that negative attitudes of nursing students may affect care. This study was based upon Parse's theory of human becoming which centered on respect of person that resists judgement based on morals, behavior, or lifestyle.

Perceptions and Descriptions of Clinical Experiences Caring for Patients with Substance Use Disorder

Two qualitative research reports addressed the reluctance and mistrust nurses have caring for patients with SUD as an impedance to care. McLaughlin, McKenna, Moore, and Robinson (2006) conducted a qualitative "survey methodology" study in Northern Ireland to ascertain the "perceptions and clinical experiences of health and social care professionals," using face to face focus groups within community settings (p. 682). This study assessed a general health professional perspective with nurses representing only a small part of the sample, as general practice physicians were predominately sampled. There were 35 health professionals recruited, of these, nine were nurses, roughly 25%. A majority of the views toward patients with SUD were negative, with a few professionals expressing positive views.

Reluctance to engage with patients with SUD was a dominant theme, in treatment and care, as some professionals, "would prefer to run a mile…they're not exactly the type of patient that you would want to accept on your list, because generally speaking there is a perception that there is going to be a lot of hard work with them…" (p. 684). Not all views were negative, as one participant realized "drug abusers…most of them seemed to come from backgrounds of either abuse themselves or quite horrific backgrounds where you could really, you could feel sorry for them and realize why they ended up where they did" (2006, p. 684). Interestingly, the researchers discovered substance use education may actually induce fear, as the participants were fearful of being perceived as an expert and "attract drug users to their surgery," increasing workloads. Some participants went so far as to note that they would refuse education if offered, to avoid contact with patients with SUD (McLaughlin et al., 2006, p. 684).

Another theme to emerge was the cynicism nurses experienced about patient care and the treatments they gave, “you always seem to come out feeling very despondent and that your best efforts are not umm really they are not really listening to you” (p. 685). The participants felt unprepared to care for patients who use illicit drugs with most participants thinking this population would best be cared for on specialty units, positing “that drug users and especially heroin users are very challenging people and the best place to care for them is the specialists who have more time” (p. 685). There was a noted lack of motivation to care for patients who use illicit drugs and a lack of empathy shown to them.

The method of focus groups to collect data was a weakness as group discussions could lead to bias through domination by certain participants. The focus groups were interprofessional which possibly skewed results, as not all participants may be comfortable speaking in an interdisciplinary setting. This study is helpful as it illuminates that health care professionals feel unprepared and possibly unwilling to care for patients who use illicit drugs. Of note, not all health care participant views were negative, as some expressed positive views and a willingness to serve this population. The researchers suggest encouraging and incentivize caring for this vulnerable population. This study highlights the lack of preparation, general reluctance, and cynicism of health care professionals surrounding caring for substance users, for which education is needed, but feared.

Similarly, nurses felt unprepared to care for patient with SUD and were somewhat leery, as Neville and Roan (2014) conducted a study in the United States using a qualitative inductive approach to explore nurse perceptions of caring for medical-surgical patients with both alcohol and drug abuse. The researchers used convenience sampling to recruit twenty-four predominately female (96%) baccalaureate prepared (83%) nurses with ages ranging between 41 and 55 years

with the majority (75%) having 11 to 30 years of experience. This study was built from two open survey questions from an earlier descriptive non-experimental study that explored suicide in patients treated on medical surgical units. Survey question one asked participant nurses to describe their thoughts and feelings about working with patients with substance abuse and/or dependence issues while in the hospital setting. Question two asked nurses how their nursing care of hospitalized patients is influenced by patient's substance abuse/dependence? The content validity of the questions was provided by nurse experts and institutional review board approval was obtained. Four themes emerged from the data: 1) an ethical duty to care, 2) negative opinions concerning caring for patients with substance issues, 3) need for education, and 4) sympathy for working with substance abuse.

The first theme was ethical duty to care, defined by the researchers as giving compassionate care, advocating, and comprehending provision of equitable care without regard to the nature or origin of a patient's disease. Theme two, negative opinions stemmed from indifference, outright anger, and patient demands which "take time away from other patients who are really sick and dependent on my nursing care" (p. 341). Nurses felt manipulated and developed distrust feeling they "always have to have your guard up" (p. 341). Nurses acknowledged feeling afraid, but noted it as part of their role, and so they "take on responsibilities in light of safety hazards; it is 2nd nature" (p. 341). Nurses addressed frustrations noting that "it can be very frustrating because we see these patients over and over again. We put a lot of time and effort into their care, and they frequently come back in the same situation" (p. 343).

The third theme highlighted a lack of education as nurses did not feel prepared to care for patients with substance issues. Lacking knowledge, nurses thought individuals specialized in

caring for patients with psychiatric and substance abuse/dependence were more suited to care for patients with SUD. The fourth and final theme was that nurses sympathize with their patients, "if they are hostile or not," "I feel sorry for their family members" (p. 342). Some nurses reflected on the childhood of patients with substance use while others demonstrated empathy, as they had family members with addiction issues. Nurse's views were jaded as they were leery of "anyone who constantly asks for pain medication" (p. 344). Literature is limited, but these themes aligned "with the scarce but growing literature on the issues and challenges that nurses increasingly face" in regard to caring for patient's substance use disorders (p. 344). These results should be reviewed with caution as there was both a gynocentric and ethnocentric view, as the sample was predominately female and Caucasian. Interviews instead of survey questions may have yielded richer data.

In summary, nurses have an ethical duty to care for all people, but do not view patients with SUD positively, lack education, and yet they sympathize with them (Neville & Roan, 2014). McLaughlin, McKenna, Moore, and Robinson (2006) discovered that health professionals have negative views of patients with SUD, need education and yet fear it, as they may be noted as experts, burdening them with more patients with SUD. Health professional are cynical about treatment; it is this last sentiment that is particularly problematic as views of this nature may influence treatment decisions for patients with IE.

Nurse Experience of Patient Agency, Value Based Care, and Addiction

Gray (2012) conducted an ethnographic study in France with fourteen nurse participants, ten female and four male Caucasian nurses, to examine nurse perspectives on patient agency and addiction. Participants were recruited from psychiatric hospitals and other community settings. Once institutional review board permission was obtained participants were observed and

interviewed with supportive historical data gathered. Data gathering, and content analysis were done simultaneously identifying key words and phrases which were then coded, and taxonomic analysis identified. Gray noted participants' beliefs about individuals addicted to drugs "resonate cross culturally in the nursing profession" (p. 38). Four themes emerged: 1) addicted individual agency, 2) boundaries in the nurse-patient relationship, and two constructs 3) 'transgression is normal,' and 4) 'time perception.'

Nurses addressed the patient as having control of their future, having agency or choice, as "the addicted individual chooses drug abuse and abstinence, but is it is the nurse who must guide him or her to healthy choices" (p. 39). Nursing care may exhibit a sense of control, against which patients naturally push back, and thus treatment goals must include the patient's perspective, otherwise it limited the patient's ability to make sense of their disease (Gray, 2012). Setting boundaries was important, as the nurse-patient relationship theme addressed the difficulty working with this population, as patients with substance use issues were a challenge and emotionally draining with their conduct and erratic choices. Boundaries that were defined and made clear were deemed as respectful care, for both patient and nurse. Some nurses struggled with harm reduction strategies such as medical assisted therapy, methadone, or needle exchange programs, transitioning from normal drug treatment to non-normative. Nurses expressed frustration, as drug policy such as this supported a patient's agency to continue illicit drug use, "we keep a distance…because we are in pain…the delicate balance between empathetic bonds and professional distance provides a safe space in which knowledge and self-reflection can occur for both patient and nurse" (p. 39).

The theme of effective therapy included two therapeutic constructs, (1) transgressions are normal as, "the treatment framework is in place to be transgressed; (2) transgression is the

essence of therapy," as patients learn from conflict management as their marginalized status affected their relationship to themselves and others. Perception of time allowed individuals to regain a grasp of time that was one consumed by "drug procurement and use" (p. 39), as drugs change an individual's perception of time (Gray, 2012). Patients needed to relearn how to function normally, as "activities with family and friends, which fill time between routines and rituals of daily life, have been lost to the drug relationship" (p. 39).

This study highlighted an in-depth view of substance use disorder treatment as a process of success and setbacks, as nurses helped patients learn to navigate in the world they once knew. This data highlights the possibility for nurses to realize and accept patients' agency and choices, establish clear boundaries, and to understand that relapse is normal. The researchers highlighted patient agency in substance use disorder as paramount to their care, setting boundaries was respectful, and established that these nurses in France recognized relapse is normal. The researchers offered another view of time in the conversation, as patients reestablished a way of being in the world outside of drug procurement. There are limitations as gynocentric and ethnocentric views were possible, as the sample lacked diverse perspectives. This study is applicable to a study of nurses caring for IVDU with endocarditis, as relapse is expected, and highlights the discomfort nurses experience with harm reduction strategies, such as needle exchanges and medication assisted therapy, such as dispensing methadone.

Johansson and Wiklund-Gustin (2016) conducted a qualitative study, a type of participant engaged alternative to a participatory action research method in Sweden. The study focused on value-based care for patients dealing with addiction, a clinical application project. Participants were treated as co-researchers with four group (reflective dialogue) sessions lasting 90 minutes over a three-month period. The six participants were two males and four female nurses, 24 – 63

years of age with years 6 months to 24 years of work experience. The findings from the focus groups were presented to the nursing unit where the nurses worked, not just the participants, to validate findings. One common overarching theme was multifaceted vigilance with four subcategories emerging: 1) balancing between understanding and frustration, 2) being supportive or a guardian of order, 3) safeguarding the healthy while observing for problems, and 4) protecting oneself while engaging in a caring relationship.

The subcategory to balance between understanding and frustration described how nurses were able to look beneath the patient's façade to see the pain the vulnerable patient was concealing. The second subcategory depicted nurses as guardians of order maintaining boundaries to safeguard patients. Nurses reported that safeguarding became conflicted, as some patients viewed boundaries as restrictive, and so nurses were vigilant to ensure they placed patient care over enforcing rules. Nurses were vital patient support systems, as "some patients need to come twenty-five times before they become motivated" (p. 307).

The third subcategory entailed nurses safeguarding the healthy while observing for problems, attune to signs of withdrawal, as during these periods' patients were particularly demanding and nurses risked losing perspective. Nurses facilitated patient responsibility using motivation to encourage patients to make better choices by drawing on patient inner strengths, as they reflected on past strategies that worked well for patients. The researchers found that nurses focused on the future, not the withdrawal, and chose to intertwine with the narrative of the patient's life, as patients "touched them," as "to narrate is to bring the person to life. It is to help patients to become real persons in their minds eye rather than as hopeless addicts, as losing one's history is also losing oneself" (p. 307). It was a choice for nurses to become a part of the patient's narrative, which allowed patients with addiction to become human.

Lastly, nurses practiced self-preservation by remaining vigilant to protect themselves from manipulation, such as when patients attempted to cause discord such as pitting staff against staff. Nurses were "vigilant regarding these kinds of behaviours and kept a distance from the patients using a common approach" (p. 307), which was not explained. The nurse image was revered, as nurses did not want to be seen as inexperienced and were vigilant to protect their image to other nurses. Nurses were able to recognize that problematic behaviors such as manipulation were driven by drugs, not malice. Nurses protected themselves from emotional depletion, as "it is so frustrating when they don't appreciate the care…and they buy something on the street as soon as they have left the building it feels like I have failed" (p. 307). The researchers report that nurses were vigilant to check their emotions when patients suffered relapse to maintain professionalism and prevented patients from seeing their frustration. To destress, nurses vented frustrations with each other, which was potentially problematic if nurses allowed negative feelings about patients to skew colleague's views of the patient. The study design was a strength as it used participants as coresearchers. The use of focus groups was a potential weakness as domination of conversation by stronger participants may have occurred

McCall, Phillips, and Estafan (2018) conducted an interpretive descriptive qualitative study using the critical social theory as an underpinning and interviewed 22 staff members (18 nurses) working in an opiate assisted treatment (OAT) facility in Canada to explore their experiences. Nurses oversaw people who used IV drugs self-inject heroin in a confined space. Six themes emerged from the data: 1) from chaos to stability, 2) it's not all roses, 3) a little preparation would be good, 4) putting the patient at the center, 5) the stigma hasn't gone away, and 6) the clinic is life transforming. Nurses in this study experienced courtesy stigma which made them more intentional to protect their patients (p. 48). The experience of working at the

clinic transformed some of these health professionals into advocates, as some felt compelled to speak with others of the experience "to increase understanding of her patients and their intrinsic value to society" (p. 48). The place that the staff and patients create is transformational, as "place transforms our behaviors" and is a social existential ground (p. 47). Two areas of future research are the stigma experienced by health professionals and the effect of place and space on care dynamics. This study highlighted the lack of education as nurses addressed a lack of preparation as problematic, as "when I was in nursing school we didn't even really talk about mental health and substance use at all" (p. 48). This study highlighted the phenomenon of courtesy stigma as denoted by Goffman (1963), as individuals working closely with a stigmatized person may themselves experience stigma.

In summary, nurses were on guard, protecting patients by policing the environment and dealing with patient frustrations, whereas patients perceived these boundaries as restrictive and nurses became vigilant to not let rules overshadow patient care. Safeguarding patient health was a priority as nurses were vigilant to protect themselves, their colleagues, and mainly their patients. The researchers (Gray, 2012; Johansson and Wiklund-Gustin, 2016; McCall et al., 2018) revealed greater depth of understanding and regard for patients with addiction with their studies. These three studies afford an understanding of safe empathetic patient centered care delivery for patients dealing with a substance use disorder.

Gaps in the Literature

Upon conducting a review of the literature concerning the phenomenon of nurses caring for patients diagnosed with IE from IV drug use, no studies were found in Appalachia or elsewhere. There was a sizeable gap in addiction science literature and nursing science literature pertaining to this topic. The extant literature was searched and there was a noted paucity of

qualitative research exploring the lived experiences of nurses caring for patients with SUD who inject drugs. The Brener et al (2010) study concentrated on studying health professional attitudes and beliefs in Sydney, Australia focusing on areas where people who inject drugs were concentrated, however; this study focused on a population of health workers which was not exclusive to nurses. McCall et al. (2019) study also included health workers working within an opiate assisted therapy center in Vancouver, British Columbia, working with patients who inject drugs, but similarly not exclusive to nurses. These two studies highlighted a gap in nursing literature and highlight the need to focus research solely on exploring nurses caring for patients with SUD who use injection drugs.

In addition, there was a noted gap of quantitative and qualitative studies exploring nurse negative attitudes towards patients with SUD within specific settings, such as public health, medical surgical units, intensive care units, women's health, and coronary care units, as examples. Furthermore, there were no studies found exploring nurses lived experiences caring for patients diagnosed with IE from IV drug use at end of life in Appalachia or elsewhere, in hospital settings, hospice, or other palliative care areas related to heart failure. There were no studies found exploring the ethical debate surrounding surgeon refusal to operate on patients diagnosed with IE from IV drug use in Appalachia or elsewhere, from the nurse, patient, or family perspective. There was a noted paucity of studies found exploring nurses caring for patients diagnosed with SUD receiving end of life care, quantitative or qualitative.

The attitudes nurses hold towards patients diagnosed with SUD were largely pejorative. However, these emotions were not well elucidated in regard to patient as aggressor, patient as manipulator, and patient as irresponsible for their health (Ford, 2011), as examples. Exploring these specific emotions in regard to delivery of nursing care to patients diagnosed with SUD may

elucidate the meaning that nurses ascribe to these emotions. Exploring the lived experience of nurses caring for patients diagnosed with IE from IV drug use in Appalachia was a starting point. Using a phenomenological approach provided rich data that elucidated an unknown phenomenon, ascribing meaning to the lived experience of nurses caring for patients diagnosed with IE from IV drug use caught in the middle of an ethical debate concerning treatment options based upon patient behavior.

Chapter 3

Methodology

The purpose of this study was to describe the lived experiences of nurses involved in the care of Appalachians diagnosed with IE from IV drug using Maurice Merleau-Ponty's existential phenomenology as a philosophical approach and the University of Tennessee Knoxville (UTK) Method as a guide (Thomas & Pollio, 2002). The voice of nurses regarding this phenomenon was absent from the literature which merited a qualitative approach (Creswell, 2014). This chapter details the design of the study, preliminary procedures, protective measures for both researcher and participants, bracketing interview overview, pilot interview and interview technique appraisal, data collection measures, analysis procedures, and methods used to ensure that study rigor was maintained.

Design

The researcher chose an existential phenomenological design to elucidate an unexplored phenomenon, using the specific steps of the UTK Method. This interpretive methodology was developed by Pollio, Henley, and Thompson (1997) and further refined by Thomas and Pollio (2002). The UTK method meshes tenets of Husserl, Heidegger, and Gadamer, but was largely influenced by the works of Maurice Merleau-Ponty (Thomas & Pollio, 2002). The UTK Method of Thomas and Pollio (2002) allowed the researcher to gain a deeper understanding of the phenomenon, examining the phenomenon through another's window of experience, seeing the world as they do (Sohn et al., 2017). The phenomenon was examined against the existential grounds of body, time, others, and world (Thomas, 2005, p. 69). In their book, Thomas and Pollio (2002) depict four phasic procedures for researchers to follow. The UTK Method shifts the focus of inquiry from self (researcher) on to the participants, then to the transcribed interview text and finally, the research community.

Self (Researcher) Focus

In the first step, the researcher focus was *self,* which was accomplished as the researcher participated in a bracketing interview to query: 1) researcher stance on the phenomenon and to elucidate the relevance for a qualitative phenomenological review, and 2) to gauge her personal experiences with the phenomenon. The purpose of the bracketing interview was to identify underlying assumptions, hidden biases, and personal beliefs about the phenomenon under review as to not influence an interview or confound the data. This procedural step in the UTK Method was invaluable to data collection and analysis and served as a key source of rigor for trustworthiness of findings.

Participant Focus

The focus next shifted to the nurse *participants*, as they provided the essence of the study. The goal was to provide a platform for mutual trust and respect and establish a place where participants felt comfortable sharing their stories. A common bond existed between the researcher and the participants as they were all nurses. The interviews took place in settings that the participants chose. In addition, the method of interview, whether via the phone, distance teleconferencing technology of Zoom, or face to face was chosen by the participant. The researcher established rapport with the participants to ease tensions and make them comfortable. The study was explained and the safeguards to ensure confidentiality were discussed in an effort to establish participant trust. Questions were largely open ended, with the exception of closed ended questions to clarify researcher understanding or to summate the information shared. The participants drove the interview and were given the space and place needed to tell their story. The researcher attempted to: 1) not ask participants leading questions, 2) afford participants adequate time to answer, and 3) to not ask layered questions, question upon question. The TPRG

was essential to pointing out researcher/interviewer questions that were on pointe or conversely, those that were off, to which the researcher/interviewer adjusted with the next interview.

Text Focus

The focus shifted to the *text* as the researcher verified the audio recording against the verbatim transcript, deidentifying it. This particular step in the interpretive process began with the use of the Transdisciplinary Phenomenology Research Group (TPRG) at the University of Tennessee. The researcher presented three transcripts to the TPRG for group analysis. The researcher along with the TPRG read the deidentified verbatim transcripts line by line, reading and reflecting, pouring over the text searching for developing patterns, metaphors, and noted prospective themes. The TPRG was instrumental in helping to recognize patterns, tease out meaning units, highlight contextual grounds, and identify what was figural to the participants (what stood out to the storyteller), analyzing themes, and reviewing and evaluating the final general thematic structure and whether or not it described the essence of the lived experience as supported by the data/transcripts. The TPRG was advisory to the researcher, as ultimately, it was the responsibility of the researcher to return again and again to the text, which was the ultimate authority. The researcher read and reread the transcripts, analyzing the participant words, reflecting and intuiting, searching the text for meaning and themes that eventually arose from the data.

Research Community Focus

The last focus was paramount, shifting focus onto the greater research *community* to disseminate findings, as this study was conducted to elucidate an unknown phenomenon to fill a gap in addiction science to improve nursing practice, guide policy, and advance education. The

research report detailed the study purpose and significance to nursing, design, philosophical underpinning and methodology, findings, limitations, and practice implications.

Procedures

Presentation of Preliminary Research Question

In the summer of 2018, the researcher presented her proposed research question aimed at exploring the lived experience of nurses caring for patients diagnosed with IV drug use associated IE to the TPRG. The informal presentation of the research question for review to the TPRG forced the researcher to articulate the study question and focus. The researcher then had to answer challenging questions that tested her current knowledge surrounding the phenomenon and understanding of the research process. The feedback the group provided was invaluable in preparing for the study.

Bracketing Interview

The researcher participated in a bracketing interview conducted by a fellow TPRG student colleague which was audio recorded and transcribed verbatim by a professional transcriptionist. The interview was then submitted for review to the TPRG which then read the transcript line by line and offered interpretive feedback raising the researcher's awareness of her preconceptions and potential threats to objectivity. This process was invaluable to the researcher as it highlighted her personal beliefs, prior experiences, hidden bias, and assumptions that risk skewing interpretation of the findings if not elucidated.

Pilot Interview

In preparation to work with participants in the summer of 2019 the researcher conducted a pilot interview to gauge her readiness for phenomenological interviewing and her ability to obtain rich data while conducting an interview. The interview was audio recorded and

transcribed verbatim by a professional transcription service. After the audio recorded interview was verified for accuracy against the verbatim transcript and deidentified, it was then presented to the TPRG for review. The TPRG read the transcript aloud line by line highlighting noted patterns and meaning units offering interpretive statements that deepened the researcher's view of the phenomenon. The group constructively critiqued the richness of the data obtained and the researcher's interview technique, highlighted weaknesses, and noted strengths. This step was instrumental for the researcher to work through the process of data collection and group analysis prior to working with actual study participants. Although the data obtained from the pilot interview was rich, the findings were not included in the study.

Ethical Considerations

Prior to beginning the study, the researcher obtained Institutional Review Board (IRB) approval from the University of Tennessee. Potential research participants were informed of the study verbally in a screening conversation and once again prior to the interview, as well as in writing via the consent form. Participants were offered a copy of the signed informed consent form (Appendix A); however, some participants did not request a copy. It was made clear verbally and in writing that participation was voluntary and that participants may refuse to participate without fear of negative consequences from the researcher or the University of Tennessee. Informed consent forms were stored in a locked filing cabinet, converted to digital file, and stored on a secure server, UT One Drive. Hard copies of the informed consent were destroyed once digital files were uploaded and stored securely.

Risks were explored with the participants, including potential loss of confidentiality. As a protection, participants were asked to choose a pseudonym. Participants were informed that interviews were audio recorded and if conducted using the distance teleconferencing technology

of Zoom, audio and video recorded. The researcher used a professional transcription service to transcribe the interviews verbatim, transcriptionist confidentiality was ensured with a non-disclosure agreement provided by a professional transcription service, a confidentiality transcriptionist pledge was prepared for other transcriptionists (Appendix D). Once transcripts were received, they were checked for accuracy, deidentified, and stored on a secure server, UT One Drive. Only deidentified transcripts were presented to the TPRG for analysis. All recordings were destroyed by deletion at the conclusion of the study. The deidentified transcripts, demographic form (Appendix B), and informed consent forms will be stored as digital files for a period of five years on a secure server.

Participant Recruitment

Nurses working in the Appalachian Region were the population of interest. Purposive sampling was used to recruit nurses who had experience caring for patients diagnosed with IE from IV drug use. Personal contacts of the researcher were queried to gauge their experience working with the population under study, as well as their interest in participating in a research study (Appendix C). In addition, participants were recruited by word of mouth using a snowball sampling method. Inclusion criteria included nurses 1) age eighteen or older, 2) able to read and write in English, 3) had experience caring for patients diagnosed with infective endocarditis who use or have used intravenous drugs, and 4) work or have worked in the geographical area known as Appalachia, primarily the northeast or southeast region of Tennessee, and 5) were willing to share their experience caring for this population. Exclusion criteria included 1) non-nurse personnel, 2) student nurses or recently graduated nurses who have not passed the National Council Licensure Examination (NCLEX) for nurses and gained licensure to practice, or nurses with no experience of the phenomenon under review.

Data Collection: Participant Interview

Data collection began in September of 2019 and concluded in December of 2019. The researcher obtained informed consent prior to interviewing nine nurse (n = 9) participants. Questions were open-ended to allow participants the freedom and space to tell their story. Participants were asked to think of a time caring for a patient diagnosed with IE from IV drug use and describe what stands out to them. Subsequent questions or prompts were open-ended, such as can you tell me more about that, or is there anything else that stands out to you when you think of caring for these patients? The aim of this question methodology was to elicit a deeper understanding of the phenomenon through facilitating participant elaboration or clarification of their lived experiences. The researcher made an earnest effort to avoid asking questions that were leading. The interview had no time limit and ranged from 30 to 80 minutes. The participant drove the interview which ended when they had nothing further to share. Field notes were recorded post interview and included pseudonym chosen, interview method, setting of the researcher and participant, as well as relevant observations of the participants, such as participant voice quality, intonation or rapidity of speech as examples.

Setting

Interviews were conducted in one of three ways, telephone, distance teleconferencing technology using Zoom, or face to face in person, per the participant's request. Interviews were conducted in a natural setting the participant chose, with telephone (4) being the most requested, followed by distance teleconferencing technology using Zoom (3), and face to face (2).

Participant Characteristics

Participant characteristics were collected using a demographic questionnaire (Appendix B). Nine study interviews were conducted from September 25, 2019 to December 3, 2019. There

were nine nurse participants (n = 9), (1) male and (8) females who ranged from 29 to 53 years of age and self-reported as having experience caring for patients diagnosed with IE from IV drug use. All participants were Caucasian (9), years of experience ranged from 1 to 31 years, with nursing degrees held: ADN (1), BSN (3), and MSN (5). Nurses were asked to estimate the number of patients diagnosed with IE from IVDU that they had cared for and the numbers ranged from two to 50 patients. All participants were actively practicing nursing in Tennessee working primarily in the Central and South-Central Sub Regions of Appalachia. Nurse specialty areas included experience in critical care, mental health, medical surgical nursing, oncology, emergency medicine, women's health, cardiac care, clinical research, and public health. Appalachia is located in an area known as the *Bible Belt* (Diddle & Denham, 2010) with Appalachians encompassing largely Christian beliefs (Jesse & Reed, 2004). The spiritual demographics of the nurse participants in this study aligned with the literature as (7) of the participants reported having a Christian faith, (1) Unitarian, and (1) "not particularly religious." As noted earlier, nurses report feeling unprepared to take care of patients with SUD; for this reason, nurses were asked to describe the type of SUD education they had completed. Two (2) nurses noted preservice substance use education while in nursing school, (1) nurse noted having both preservice and on the job hospital-based substance use education, (2) nurses noted having on the job hospital based substance use education only, (3) nurses noted having no specific training, and (1) was unknown. The sample size (n = 9) was determined when saturation of the data was reached as evidenced by no new information arising from the text after seven interviews. At that point, two more nurses were recruited and interviewed with findings consistent with the previous seven interviews. Data collection ceased at that point. The sample

size was consistent with a phenomenological study guided by the UTK Method (Thomas & Pollio, 2002).

Table 1: Participant Demographic Characteristics

Pseudonym	Age	Race	Gender	Degree	Years of Practice	Nursing Specialty	Substance Use Education	Estimated IE Patients Cared For	Religious or Spiritual Practice
Amy	29	Caucasian	Female	MSN	7	Mental Health	Preservice: Nursing School	"7"	"Baptist"
MJ	43	Caucasian	Male	MSN	6	Critical Care	No Specific Training	"4 or 5"	"Methodist/Christian"
Leah	29	Caucasian	Female	BSN	6	Critical Care, Medical Surgical	Preservice: Nursing School	"40 to 50"	"Christian"
Natasha	44	Caucasian	Female	BSN	6	Critical Care	Unknown	"50"	"Unitarian to None"
Sarah	40	Caucasian	Female	AND	1	Medical Surgical-Oncology	No Specific Training	"20 to 30"	"Christian"
Hazel	36	Caucasian	Female	MSN	7	Clinical Research, Oncology, Emergency Nursing	No specific Training	"20+"	"Not Particularly Religious"
Carly	38	Caucasian	Female	BSN	8.5	Critical Care	Preservice: Nursing School & Hospital Based SUD Training	"10 to 15"	"Baptist/Christian"
Kim	53	Caucasian	Female	MSN	16	Women's Health & Cardiac Care	Hospital Based SUD Training	"30"	"Believer/Baptist"
Angela	53	Caucasian	Female	MSN	31	Public Health	Public Health SUD Intense Training	"2"	"Christian"

Data Analysis

Data analysis was conducted following the steps outlined in the UTK Method as described by Thomas and Pollio (2002) and Sohn et al. (2017). Each interview was recorded and transcribed verbatim by a professional transcriptionist who provided a non-disclosure agreement. The transcripts were then verified for accuracy against the audio recording, deidentified, and converted to digital files for secure storage. In keeping with the UTK Method, the researcher

presented the first verbatim deidentified transcript to the TPRG, in total, three transcripts were presented to the TPRG for analysis. The members of the TPRG signed a confidentiality pledge prior to the reading of the transcript (Appendix E). The researcher and the TPRG then read the transcript aloud, pausing often to offer interpretive comments, and noting thoughts in the margin of the text to share with the researcher. The text was searched for phrasal similarities, metaphors, and reoccurring conceptual patterns (meaning units), as viewed against the contextual grounds of the transcript.

The researcher followed the same process to analyze and interpret a total of nine transcripts. The researcher read and reread the transcripts to gain a sense of the whole, deeply reflected on what was read, intuited, searched for meaning units, such as metaphors, particular words, or a phrase the participant used to describe their experience. The participants often had a significant word when the researcher asked about their experiences caring for participants diagnosed with IE from IV drug use, such as futility, disregard, denial, or manipulation, as examples. These meaning units were then grouped together in larger constellations of meanings which were then formulated into themes. Themes that threaded across the transcripts were considered global if they were manifested in all transcripts or were not contraindicated in any of them (Thomas & Pollio, 2002).

Data saturation or a convergence of themes was identified after the seventh interview; two more interviews were conducted to avoid holistic fallacy (Keele, 2011), as no new data arose from the text and data collection ceased. Once the global themes were developed the construction of a thematic structure followed, which included a schematic representation of the themes and their relationships. The proposed themes with supporting participant quotes were presented to the TPRG for a final analysis, an evaluation of the thematic structure against the

text. The TPRG was instrumental in ascertaining if the essence or meaning of the lived experience was captured by the thematic structure as supported by the text. The feedback of the TPRG was invaluable to the researcher, however; it was the responsibility of the researcher to ensure that the ultimate authority was the text, as it was the words of the participants that provided the thematic support.

Study Rigor

The researcher followed the existential phenomenological UTK Method as outlined by Thomas and Pollio (2002) and Sohn et al. (2017). She completed a bracketing interview as aforementioned that helped lay the foundation of rigor for the study, explicating and reducing researcher bias. The researcher conducted a pilot interview and presented the transcript to the TPRG to ascertain ability and readiness to conduct a phenomenological interview, as well as evaluation of the quality of data attained to elucidate a phenomenon. The TPRG was crucial for the researcher serving as both a peer review and debrief, often providing an interpretation of the text that opened the researcher's eyes to other possibilities. To van Wijngaarden et al. (2017) it was vital for the researcher to interact with others to help the researcher see things she might otherwise miss and see her own "evolving understandings 'with new eyes'" (p. 1741).

The TPRG's multi discipline lens perspective afforded diverse perspectives and opportunities for collaboration outside the discipline of nursing. This diverse perspective afforded the researcher both a professional perspective of the phenomenon from fellow nurse researchers and a blind analysis of the data from those outside the discipline of nursing. The group served as a source of comfort and reassurance when the content became overwhelming and disquieting at times. The TPRG helped uncover meaning units, code the data, and evaluate

themes and then gauged if the thematic structure constructed by the researcher successfully captured the essence of the phenomenon.

According to Guba and Lincoln the trustworthiness of naturalistic inquiry is ensured by: a) establishing truth value or credibility, an assuredness of data truth; b) applicability or transferability, the application of the study to other situational contexts and persons; c) consistency or dependability, the likelihood that repetition of findings will occur with comparable participants within the same or related environment; and d) neutrality, or confirmability, findings were derived from participants' experience, not bias on the part of the researcher (as cited in Guba, 1981).

To ensure truth value or credibility, member checking was used to assure that the findings are as the participants experienced them. Applicability or transferability was facilitated by using thick participant descriptions and establishment of a "degree of 'fit' between the contexts" (Guba, 1981, p. 81). Consistency entailed using human as instrument and the likelihood that findings were dependable as consistently demonstrated amongst the various participants, as naturalists believe in multiple realities. Humans act as instruments and evolve in "insights and sensitivities," demonstrating reliable stability and trackability demonstrated in "explainable changes in instrument" (Guba, 1981, p. 81). Interviews were conducted, and the data simultaneously analyzed until data saturation was achieved, as no new findings arose from the data. Neutrality or confirmability was ensured by the researcher participating in a bracketing interview to ensure data was objective and without bias as only participant experiences were illuminated in the text. Another measure to authenticate participant data was to practice peer evaluation, debriefing and review. The TPRG helped to ensure essential elements of rigor were maintained.

Threats to Rigor

Upon initiating this study, the researcher had no prior knowledge of caring for patients with IV drug use associated IE in Appalachia. As a nurse, the researcher did care for patients demonstrating drug seeking behaviors, patients suffering from overdose or drug poisoning, and patients suspected of using IV drugs while working in the Appalachian region. Potential threats to rigor from these prior experiences were reduced with an initial bracketing interview prior to conducting her first participant interview. Bracketing was a continual process that included peer debriefing with the TPRG at the University of Tennessee to ensure study rigor.

Summary

Negative attitudes towards patients with SUD reveal a darker side of nursing. The attitudes of nurses directly involved in the care of patients with SUD who have used IV drugs and contracted IE are unknown, as this is an unexplored phenomenon. The literature review supported that this was an unexplored phenomenon as no studies, qualitative or quantitative, were found exploring this phenomenon. The purpose of this study was to describe the lived experiences of nurses caring for vulnerable patients involved in an ongoing ethical debate as to the appropriate care, based upon the patient's history of SUD and IV drug use. The goal was to gain an understanding of the lived experiences of nurses who were providing care for patients diagnosed with IE from IV drug use in Appalachia to provide beneficial information to inform nursing practice and improve patient outcomes. For this reason, the UTK method which is based on the existential phenomenological tenets of Maurice Merleau-Ponty was instrumental to the elucidation of an unknown phenomenon. According to van Wijngaarden et al. (2017, p. 1743) the goal of phenomenological inquiry was not to provide "deductive conclusions" rather to "provide plausible and inceptive insights into the primal meaning structures." Qualitative

research is person oriented, focusing on individual need and preferences, and used to elucidate a deeper insight of the meaning of the experience, which includes context (existential and social) (van Wijngaarden et al., 2017), making this a fitting method to explore an inflammatory topic.

Chapter 4

Findings

The purpose of this study was to describe the lived experience of nurses caring for patients diagnosed with IE from IV drug use in Appalachia. In this chapter, the existential grounds are identified, figural themes illuminated, and the thematic structure presented.

Existential Grounds

According to Maurice Merleau-Ponty, experience is only understood when studied against the existential grounds of *world, time, body,* and *others,* as described in chapter 1. In this chapter, the existential grounds that provide context of the lived experiences of nurses caring for patients diagnosed with IE from IV drug use in Appalachia are presented, followed by the presentation of figural themes, and then the thematic structure is presented.

The existential *world* of the nurse caring for patients diagnosed with IE from IV drug use occurred in a place of familiarity for nurses, places in which nurses felt at home, either the hospital or clinical setting. However, a parallel world of dread existed within this place of familiarity, leaving nurses feeling entrapped and strategically devising escape plans. Nurses typically gave care within the ordered world of the hospital, a place where rhyme and reason were revered, as care was planned, ordered, with patients who were compliant, cured, and thankful for the care they receive. However, when caring for patients diagnosed with IE from IV drug use, nurses in this lifeworld experienced despondency, caring for undesirable people, labeled the "the dreaded patient." Nurses in this lifeworld were exasperated trying to care for patients they perceived as not wanting help. Nurses in this lifeworld tried to push through barriers of frustration to give care to patients contained and confined like prisoners condemned to "weeks of therapy." Nurses became keepers of patients, in an attempt to contain their disease of addiction to heal their IE, while controlling and confining them to prevent illicit drug use. This

care was overshadowed by a general consensus of distrust and dislike for this population of patients. Nurses revered their customary lifeworld, a sacred space and place of healing, and when patients desecrated this place with their behaviors that were contrary to healing, nurses in this lifeworld experienced frustration.

The lifeworld, hospital or clinical setting, of the nurses in this study existed in Appalachia, an area profoundly affected by the opioid crisis. Nurses in this lifeworld described their medical patrons as having economic disparities, noted adverse childhood experiences (ACE), health literacy issues, lacking basic social determinants of health, such as shelter, education, and insurance, as examples. Hospital settings were the place of typical care exchanges and were described as larger urban medical centers to smaller rural access facilities. Some nurse participants described patients as, "swing bed patients," and according to the Centers for Medicare & Medicaid Services (CMS), the Social Security Act permits small rural hospitals to enter a program that allows their vacant beds to be used for patients in need of acute or skilled nursing facility care, these small hospitals or critical access hospitals (CAH) are approved to render skilled nursing facility (SNF) care (2017). Of note, according to CMS no psychiatric beds may be used for hospitals participating in the swing bed program (2019). According to Richardson & Kovner (1987) arguments were made early to use these beds for "substance abusers" (Richardson & Kovner, 1987, p. 61). Patients diagnosed with IE from IV drug use stay in the nurse lifeworld of the hospital for extended periods of time receiving IV antibiotics. According to nurse Amy "most patients weren't there over a week. Swing beds were there for six weeks," segueing into the next existential ground of time.

According to Merleau-Ponty, time is not linear or measured by a clock, *time* is used to describe the moment of existence, and to nurses working with patients diagnosed with IE from

IV drug use, the *time* most relevant to them is the opioid crisis. In this *time* of crisis, nurses are experiencing increased patient admissions for drug related problems. For this reason, during this time, nurses are experiencing the need for heightened vigilance to protect patients from illicit drug use. Time to the nurse was a commodity as nurses frequently described the constancy of attention required by patients diagnosed with IE from IV drug use, robbing them of time meant for other patients. Nurses in this world considered time as something that could be stolen from them, as well as from other patients. Nurses perceived the expectation of care for patients diagnosed with IE from IV drug use as above and beyond the usual standards of care, as nurses were in constant motion trying to meet the incessant demands of their patients, families, and visitors, in addition to caring for other patients that were assigned to them, consuming their time and their energy. During this *time,* nurses were out of sync, as their timing was off rendering them out of energy; time dwindled, leaving them exasperated as they desperately tried to keep pace, noting there was not enough time to do all they needed to do to care for this population.

The existential ground of *others* included nurses and physicians working with the nurses to care for patients with IE, but more figural in the interview accounts were family members and acquaintances of the patient that seemed to "come out of the woodwork," and walk the halls all hours of the night. Nurses described situations in patients' rooms involving *others* as intensely uncomfortable and intimidating. They likened these interactions with hospital visitors as akin to them being in a Jerry Springer show. The Jerry Springer Show was a popular crude talk show known for volatile topics such as cheating scandals; a show full of "drama" filmed in front of a rowdy live audience. The *others* existing in a Jerry Springer environment may experience the occasional chair flying across the room, in addition to occasional acts of physical violence.

The existential ground of the *body* was illuminated as nurses shared their stories of care delivery to patients with IE from IV drug use as being a never-ending tax on their body, as they were physically and emotionally exhausted. Nurses were drained of their energy, depleted and literally spent. Embodied emotions included fear, loathing, and "almost disgust." For these reasons, in self-preservation, nurses devised escape plans for their bodies.

Figural Themes

The meaning of the lived experience of nurses caring for patients diagnosed with IE from IV drug use encompassed a polar central theme of helplessness/hope from which four global themes were derived: (1) guarding/escaping; (2) responsibility and revulsion; (3) empathy/apathy; and (4) sorrow and grief/cold and unemotional. Nurses transformed into the role of guard, as patients diagnosed with IE from IV drug were contained for long term antibiotic therapy, not trusted to go home and receive the therapy as outpatients. Nurses were overwhelmed with the demands entailed in being a patient keeper and devised escape plans. Nurses honored their responsibility to care for their patients, even though they experienced revulsion at times for their patients' "self-inflicted" illness and behaviors while in the hospital. Nurses experienced sadness watching young lives destroyed by the disease of addiction; some grieved while others were cold and unemotional. Lastly, nurses were consumed by a sense of helplessness, unable to penetrate patient walls of denial and disregard, however, there were nurses who transformed to see a vulnerable patient in need of assistance, rather than shame or blame.

Central Theme: Helplessness/Hope

The central theme of nurses' perception of their lived experience caring for patients diagnosed with IE from IV drug use depicts a polarity, with *helplessness* because nurses perceived care as futile, juxtaposed with a few glimmers of *hope*. Nurses experienced a sense of

powerlessness, while caring for these patients, as they struggled to reach them in the hope of making a difference in their life. In frustration nurses threw up their hands, decrying "enough already," as nurses found themselves at their "wit's end." Many of the nurses found it "hard" to provide care for patients who refused to change their behaviors, were non-compliant with treatment, and who were perceived as not really wanting help. Nurses questioned admitting these patients and wondered why patients who refused to change even bothered to come in for treatment at all, as exemplified in this quote:

> Well they're scared because they're sick, they're scared in the moment, but even through all that, some of them will tell you that I'm not going to change. So then in your mind you're saying to yourself, well why did you even bother coming in? And it's just frustrating. (Natasha)

Nurses perceived themselves as helpless to overcome the patients' denial and disregard for their health. In return, patients railed against the nurses, the controlled confined environment, and medical treatment in general. Nurses pointed out that patients diagnosed with IE from IV drug use "refuse a lot of care." When assigned the "dreaded patient" to care for, nurses were physically and emotionally tested, and perceived themselves as struggling in vain to protect their patients from illicit drugs to help them recover. Nurses were at a loss to understand their patients' decisions, much less to help them.

> I've had a patient that had a bag full of pills…So the pills were locked up and when the patient left we had to hand in the pills, right back to the patient (laughing), which I thought was crazy, but...I think it was kind of aggravating because you're there to help

> them, and they're there because of the pills, but yet you're handing - you're enabling them. That's what I felt like I was doing when I was handing those pills back, they hadn't learned, they had not learned any lesson while there. It didn't, it didn't affect their choices at all. (Leah)

Nurses perceived themselves as unable to stop the "vicious cycle" of addiction that the patients were on. The diagnosis of IE thrust a spoke into the wheel of addiction, slowing a patient down, but nurses perceived them as driven to continue illicit drug use. It was frustrating to nurses, who were holding up their end of the bargain to help the patient, but they struggled under the weight of caring for a patient unwilling to change or to work with them. Six out of nine nurses cared for patients with a history of valve replacement who had returned with repeat valve infection; these were particularly frustrating encounters because the patients' recidivist drug use had sealed their fate. In essence, nurses were indeed unable to save them.

> They'll only replace the valve once. So, if you get endocarditis enough, you get... Already have your valve replaced. They won't replace it again because it's a lost cause. So that can be sort of frustrating because you'd have to explain to them what the ramifications of their actions were. (Hazel)

With the opioid crisis, nurses were experiencing an increase in hospitalization of patients diagnosed with IE from IV drug use in the region; thus, after time, according to Hazel, nurses "get sort of calloused to the process." Hazel was vehement when she described her experiences caring for patients diagnosed with IE from recidivist IV drug use. This narrative provides a rich description of her frustration with patient education.

> I think it's very clear once you've educated them on the ramifications of their actions, you know it's up to them. It sounds very black and white, but at a certain point in your life, I'm not your mother. I'm not your God. If you choose to be stupid, and you choose a course of action that's going to result in your death, I can only provide so much, and I can only educate you so much. So, you're as my grandfather used to say, 'Free white and 21. If you play stupid games, you're going to win stupid prizes.' So, if you choose that path in life, there's only so much any healthcare provider can do for you. They educate you. They make sure you're aware of what you're doing, and they move on to the next patient.

Nurses described being at their "wit's end," and experienced a "what can you say at that point" moment, helpless to make a difference.

> Some of them viewed it as caring for patients that wanted to be compliant and wanted to get better. To caring for somebody that's just going to yell and scream at you, and complain, and be non-compliant and probably back in a couple weeks. It's like, I guess you could say 'enough already,' and I know that's crappy way of phrasing that, not the proper way of phrasing that, but that's probably the most accurate way of phrasing it. (MJ)

Once nurses informed the patients of the dangers they were wreaking on their bodies, at that point, the choice became the patients. Nurses upheld their responsibility to inform patient of the dangers entailed in playing "stupid games." Then they had to move on. Nurses described sobering moments of clarity, as they perceived the care they were delivering as futile. There

were nurses who claimed the loss and let go. The following narratives describe these experiences.

> I think it just all basically comes back to the perceived futility. There are always, I'm assuming there's always bright spots where people do take advantage of the opportunity to them and they find the strength to change, whatever that may look like. But most of us just claim the loss and they're a burden on society. For expending a lot of the time, money, and resources on someone who doesn't want to change, but I think our conscience can't just let…We try to make everything have feel-good endings, rather than just letting… If a patient says I'm not willing to change, discharging them and let them live their life as they want, with the understanding that we can't help them. (Natasha)

> That mindset, on the side of the patient, if you really can't reach them, if that's just their driving force and you really can't reach them, it really is hard for the nurse to accept that. To accept the choice of another person to be harm to themselves. That's really difficult to process… They're adults, they've made a choice, and we have to accept that choice. Sometimes that's really hard to do as a nurse, that's our salvation, actually. If we can't do that, we're not going to be happy. We're not going to be able to do what we do and keep helping other people. You have to help the ones that want to be helped. The ones that don't, you can't fix people who don't want help. You can't help people who don't want help. (Kim)

Kim described her experience caring for a patient granted a second heart valve replacement for repeat IE from IV drug use as futile. This is her narrative.

> When she got her second one, we sent her out, and within a year she OD'd [overdosed]. We had two valve replacements, an astronomical amount of time spent in the hospital to invest in a young woman who didn't care to get better, and we didn't treat to get better. We just treated the physical addiction, and not the psychological addiction. She ended up dying anyway. What do you do with those things? You just question, why did they do it in the first place? (Kim)

This sense of helplessness was compounded by the perception that care was off target, aimed at curing the infection, but ignoring the greater issue of the underlying psychiatric disorder of SUD. Only one nurse noted delivering medication assisted therapy in the form of Buprenorphine, a medication to treat SUD.

Nurses were frustrated that time was lost, in that patients were held for "weeks on end" within the various facilities, with no psychiatric consults or counseling ordered or offered within that timeframe. The process to transfer patients to a psychiatric facility capable of caring for patients with medical issues on top of psychiatric issues was complicated and time-consuming, "it is frustrating." Nurses were frustrated when patients said they wanted help, only to refuse it. According to MJ "that's something that we see a lot with IV drug use, and alcoholism, they just refuse treatment." Carly described her frustration with this narrative.

> We put all this work into getting this dude down there [psychiatric facility] and, because he couldn't get the medication that he wanted, he left. You're, like, you can't make it through two hours of being in a facility? Then you really didn't need it anyway. You know? Why even go through all... (Carly)

Social work was involved in the care, but with an unhelpful "cookie cutter" approach that "wasn't about the patient." Nurses were frustrated, as without appropriate mental health care, they knew their patients would "end up in the obituary," as "we're not treating the disease." These narratives describe their frustrations.

> I mean, I think it's sad from the perspective that they're being taken care of as far as the infection…With the disease, there's no, there's no psych management at all. There is usually not any psych meds included or any counseling that goes on while they're in the hospital for these issues… they're there for six to eight weeks. That's the perfect opportunity to talk to them and help them. But we don't have those resources in place. (Leah)

> You know… since those resources aren't in place, you know, that they're more than likely gonna come back, they're going to be back for the same thing, or they're going to be, they're going to end up in the obituary. I mean, it's sad that it's just a vicious cycle. (Leah)

> There really isn't any psychiatric care. The drug is their crutch, it's their way to cope with whatever it is. Without some sort of positive outlet for whatever it is that's driving that need, they're just going to keep using. Until we can get to the bottom line of what is the problem, what causes them to want to escape… Most people don't stick a needle in their arm just for the fun of it. There was some kind of psychiatric something that needed to be addressed, and the fact that we don't have a good system for that kind of care in our country is just going to keep compounding other problems, including the drug

> problem. We have the whole opioid crisis here, same general purpose. We don't treat what the root cause is, we're just going to keep covering it up with medication. (Kim)

Nurses described family as desperate for nurses to help place their loved ones into rehabilitation facilities through the use of coercion, to which nurses would have to reiterate that they cannot force patients into rehab, as "that has to be chosen by the patient themselves," as "you want to help people, but if they don't want to be helped, how are you going to do that?" The extent of this scenario was shared with this narrative.

> That was a lot of the demands from some family members is that we force them to go to a rehab. But that was something that we can't forcefully do to somebody.... Case management can refer, and make referrals, but we can't force them to go. (MJ)

Nurses then had to explain to families that there is nothing that they can do, as the patient has the autonomy to make that decision. Although these experiences were frustrating, as nurses experienced helplessness, there were noted glimmers of hope.

Hope

There were nurses who described elements of hope as they chose to remain positive, even in the midst of patient setbacks, as Sarah noted, "you can't get disheartened to the point where you think this is going to be every patient." There were nurses who worked through their angst and biases, experiencing a transformation. Nurse Amy cared for a young man "a few years her junior," he was "terminal," as he was ineligible for surgery. It was Amy who told this young man

that he was dying. His death affected her; this is her narrative describing the events following his discharge home:

> He passed away in less than a month. It was just one of those touching moments. He was so young…It was very hard for me to deal with, to come home and try to leave my work at work and not think about it.

This young man was orphaned as a child and raised by relatives. He was different, his "attitude just seemed to be more pleasant," and so the nurses did not mind caring for this young man, and when he died, "everybody on the unit was saying, 'Did you hear about so and so? How sad is that?'…the tone was changed like, 'Man what a horrible situation.'" And so, Amy demonstrated transformation in her care and described these thoughts toward the end of the interview with this narrative:

> And it just kind of all hit me all at once, like that could be my brother in there one day. You never know who's going to wind up in that situation, and he made some bad mistakes, and he didn't have the chance to recover from that like most young people do. I just feel like I was one of those negative nurses, and then for me to have that eye-opening experience, it was something that even in my own family, I have substance users, and it can happen to anyone, but I was so naïve that I thought, 'It's all their fault. How can we provide care for somebody who doesn't care for themselves?' type thing. And then when it came down to it, they really do care. They just don't know how to overcome their illness. They don't know how to care for themselves. (Amy)

Amy ended her interview addressing the other nurses she worked with as such, “most of the nurses were quite negative about it, but it just took that interaction with the patient to realize they’re a person too.”

Nurses recognized their role of caring about and for another human being, as essential. It was vital for nurses to understand where patients came from and how to help them, as this is crucial for patient healing, as described by these narratives:

> So, you care about these people…You care about all of them. It's hard not to care about another human being. (Sarah)

> Everybody has a story. You have to understand where someone came from to understand why they make the decisions they do. If you can understand where they came from, you might be able to help them see a better way to handle whatever that was. Like I said, that's probably the biggest missing component in all of this anyway, is how do you lend a hand without being a crutch…Trying to figure that out is your best role as a nurse. (Kim)

Summary

This theme highlights the vulnerability and frustration nurses experienced as they perceived their nursing efforts as futile, unable to save their patient. This theme adds richness and depth to the meaning of the lived experiences of nurses caring for patients diagnosed with IE from IV drug use, illustrating the frustration with “spinning their wheels,” unable to make an impact on patient outcomes. There were glimmers of hope, transformation of world views, as nurses had “eye opening” experiences to reduce their own stigmatization of patients. Mindsets that evolved to realize that patients do want to change, “they just don’t know how.”

Theme One: Guarding/Escaping

When caring for patients diagnosed with IE from IV drug use, nurses perceived that they had involuntarily transitioned into a jailer or guard on duty to protect their patient from drugs being smuggled inside of food, passed in through ground level windows, and brought in by family and visitors. This theme has a noted polarity, as nurses were to stand guard and yet wanted to escape from the duty of this situation. In this role nurses experienced fear and frustration as they attempted to guard patients who they perceived as determined to self-harm, heightening the responsibility. Exasperated, nurses were responsible for someone who was irresponsible, and perceived as a danger to their own health. Caring for these patients was ominous, and nurses perceived these care assignments as dreadful. When an admission of a patient diagnosed with IE from IV drug use was imminent, nurses demonstrated silent opposition through a cacophony of sighing heard throughout the unit, as "it was a very negative connotation to have to deal with those patients." Electronic records were flagged, indicating patients were untrustworthy and therefore required confinement and containment to receive treatment. Patients diagnosed with IE from IV drug use were "the dreaded patient," with nurses bemoaning when it would be their "turn" to deal with the patient and subsequent issues entailed in keeping watch:

> Well, it does affect the floor because now nurses are like, 'Is it going to be my turn to deal with this?'…It had a definitely negative effect on the floor. (MJ)

The process nurses described as "keeping patients" entailed overseeing containment, with typical behaviors seen in carceral settings observed. Because of the possibility of drugs being smuggled into the facility, searching was part of the nurse role, as food, rooms, and visitors were subjected to searches. Family and visitors either understood and appreciated the added layer of

safety provided in an attempt to safeguard patients, or they felt like they too were the “prisoners” doing drugs.

Nurses described similar perceptions by the patients as feeling a sense of entrapment, contained and controlled within and by a health carceral system. Amy depicts patients being “shipped in” and their perception of being jailed:

> They [patients] came from another hospital, too. They would come from mainly a larger hospital, and then be shipped to us, so I think that their negative outlooks and the whole thing of feeling like they were in jail, like they couldn't go outside, their families had to be searched, their visitors had to be searched, their food at that point. A lot of them tried to be discharged early. They'd say, I‘'ll do it [antibiotic treatment] at home. I'll have them’ ... But then insurance wouldn't provide for them to have the antibiotics at home. (Amy).

Containment required patient compliance with the system rules, and if patients refused to comply, “here’s the AMA [against medical advice] paperwork, and you are free to leave,” forgoing all treatment. Nurses described questioning “the ethics of keeping patients,” as they then had to keep and guard patients who railed against the rules and enclosure, metaphorically and literally. Nurses found themselves entrapped as well, as they were put in the role of guard and peacemaker. In addition to caring for the complex medical needs of patients, nurses needed to redirect patients and visitors exhibiting maladaptive behaviors. Nurses were under constant pressure, on high alert, continually surveilling the environment, appraising people and essentially vetting them for their potential to harm their patient, or their ward.

In addition to keeping watch over “the dreaded patient,” nurses were assigned “up to seven patients,” and they perceived patients diagnosed with IE from IV drug use as especially demanding, as described by these narratives:

> I feel like we should treat all patients the same, but it was very hard in that instance, when you're working 12-hour shifts, and you have all these other patients on top of that, and then you have that patient [patient diagnosed with IE from IV drug use] that's like the dreaded patient. (Amy)

> Well, it's often time demanding for the nurse that has assignment of that patient [patient diagnosed with IE from IV drug use], demands a lot of her time to be, you know, watching that patient's room or dealing with the issues about calling security and charting all that's going on. (Leah)

Nurses described care as taxing, taking an emotional and physical toll on the body, as nurses described being “constantly” in motion. Nurses felt as if patients lost sight of them as a nurse and instead treating them as if they worked in the hospitality industry, as illustrated in these exemplars from the interviews:

> Well, just the constant running between patients, and then their call light is going, and you're just constantly dealing with them, and it kind of gets physically draining when you're constantly running. Makes it harder to chart and do what you need to do, because your call light is going off again. ‘Here we go again,’ let's go see what they need. You're just constantly running. (MJ)

> They treat us more like a hotel than a hospital. They expect you; you know, they expect you to bring their medicine right on the dot. They don't have any understanding or any care about any other patient there. And that you're busy taking care of other patients. They do not care about that. They're very - they want tons of, they usually ask for tons of food and tons of drinks. I mean constantly they're asking for that for them and for their family members…And it takes a lot to get under, under my skin, because I know I'm usually very patient with these people because I have family members that do IV drugs, and I try to treat them like I would my family, but it gets to the point where they're ringing out literally every hour on, they're on the call light wanting something, and that gets really old, really quick. (Leah)

> I feel like, especially in our day and age, they expect more. We say it all the time, sometimes say it just jokingly, but often times it's not, they treat us like we're maids or like we're a hotel rather than there trying to make decisions to save their life. (Carly)

Guarding patients was symbiotic, as nurses attempted to guard the patient from others and themselves, keeping others from harming their patient with illicit drugs or the patient self-harming with illicit drugs. In addition, nurses guarded themselves, to keep from being drawn into a situation that would drain them of their time, energy, or cause bodily harm. Nurses described their role with a determined fierceness to shield their patient from harm as described by this narrative:

> You're always on the lookout for things like that, especially in the early stages of it because that's when people come out of the woodwork to visit the patient… I have

actually directly told people that I knew what they were doing, and I've looked there and stared at him the entire visit. It was obvious that they were trying to give the patient something…So, you just have to be on the lookout for it. (Carly)

Although dutiful nurses stood guard, they questioned the policies and procedures surrounding the practice of keeping patients confined for long periods of time. Particularly, the justice issue, as to why some patients were allowed to have antibiotic therapy on an outpatient basis, and others were not:

I just feel like it was saddening to me to think about also if he would've had insurance or if he would've worked at some point, would he have received better care? That was just a thought in the back of my mind, too… I feel like if he would've had insurance, maybe he could've done the IV antibiotics at home. He wouldn't have gotten so depressed in the hospital setting. (Amy)

Escaping

As noted earlier, study participants described these patients as "the dreaded patient," from which they devised means of *escaping*, so that they would not succumb to undesirable situations experienced by their colleagues, described as being caught up, roped in, or sucked into some situation happening in a patient's room. Nurses described the means of escape they devised as self-protection as per this narrative:

So, at some point you have to protect yourself, and so you call upon your friends to help you with that, by like I said, taking a turn in the room…So, there are certain patients

where you just rotate, like you only have them for a shift, because they just take so much energy to care for. (Natasha)

Other nurses devised more creative methods. For example, they might ask a coworker to page them after five minutes in a patient's room. Kim described a strategy employed by her colleague:

He has this fun little sense of humor…he has what he calls hallway drama…if he thinks there's going to be a little Jerry Springer thing going on when he's in the room, he'll kind of set something up in the hallway. He'll tell another nurse, or a tech or whoever, give me 15, 20 minutes, then make sure you do this or that. Just call me on the buzzer or whatever, or knock on the door, or come in and say I need you in whatever room, so he has something set up to escape, with reason. (Kim)

In other instances, nurses literally ran back to the nurses' station in fear, when confronted with uncomfortable situations, sensing danger. There were "sexually inappropriate" comments and nurses described being physically threatened with the removal of body parts, which progressed to the patient and visitors threatening to kill the nurse. These are their narratives:

And so it was kind of funny to begin with, and then it was one of those things where it kept escalating, like they…Said they were going to kill her, so we had to call the cops, and the cops did come, and talk to them, and it was one of those ... It was just a heightened sense of ... We took buddies in with him from then on out. We didn't go in alone, and they didn't stay very long. I think they signed out early. (Amy)

> I think people were more on guard about, about going in the room and as far as we would like leave the medicine carts in the hallway and not take them into the room and not turn our back on them just because we thought 'man they're crazy' because you just don't know what people are going to do. (Leah)

Nurse Angela works in the field and is often on ground working with families in the throes of addiction, and sometimes children may need to be removed from a home for their well-being. Situations such as this are highly volatile, as nurses and caseworkers have been exposed to firearms during these interactions. Angela teaches nurses to protect themselves, how to escape situations using calm delivery as per this narrative:

> They brought a gun to the office…This is how I talk. 'Don't be stupid. You can't be stupid.' You have to be smart about your interactions. You have to be aware of what's going on. You have to be able to read the room …And you need to excuse yourself, and say everything's fine, which it's not, and for your own safety, back out. (Angela)

Nurses worked in earnest to safeguard patients and relied on their intuition or sought answers for puzzling or distressing patient behaviors. Regardless, some patients still managed to self-harm with illicit drugs with devastating results, as a patient died. Nurses were left to question; did we miss something? Nurses cannot escape their memory or feeling as if they let their guard down and a patient died on their watch. Events such as this, were traumatizing and unforgettable, as described in this narrative:

> One patient in particular that I recall, was very nice, but overly nice. You could tell something was going on, but we couldn't figure it out …they found them unconscious

and coded. They did not survive… It wasn't our fault, but at the same time, it was one of those feelings where you're like, 'Could we have prevented it?' I think that was lingering over everyone's head, too, like everybody was thinking back like, 'Did we see a sign at all? Was anything askew?' (Amy)

Summary

This theme described the gravity of the role of the nurse as patient keeper, a role that was particularly heavy, demanding, and frustrating. The nurse was always on guard, keeping the patient from harm, keeping others from harming the patient, keeping patients from harming themselves, and then keeping themselves safe, compounded by the busy chaotic environment. This theme allowed the researcher to understand the nurse working tirelessly to safeguard the patient, illustrating the depth of the situation and the additional responsibility that comes with "keeping patients" for prolonged periods of time.

Theme Two: Responsibility and Revulsion

This theme demonstrated a duality, as nurses described the struggle entailed in caring for patients diagnosed with IE from IV drug use. The ethical responsibility to care for patients perceived as driven to self-harm was interwoven with revulsion for their perceived irresponsibility for their health. Nurses described their efforts to care and connect as futile, unable to break through, struggling to make an impact, perceived themselves as making no headway with the patient. Yet it was nurses' responsibility to connect with patients, to understand them, to help improve their lives. The following quotes illustrate the imperative to help the patient find the "right path" and resources:

I think the biggest thing is just not to be judgmental. You're not there to be a crutch, you're not an enabler, but to be an advocate, to try to get the resources that your patient needs to get better and not be here again. If we fail in that, and it has happened, if we fail in that, we have a patient who's a lot worse off than they were when we found them. That's our job as a nurse, to make things better, to put your patient on a more steady path of wellness and happiness...That's our calling, that's what we're supposed to do. Make it better than we found it. (Kim)

I think I have a personal thing with them. You check a lot of that [judgement] at the door because you have a job to do, but there is no way that a real human being doesn't involve some of their experiences in anything that they do. You involve how you grew up in how you raise your children. You can't check every emotion that you have at the door, you'd be emotionless. That'd be insane, you couldn't be a nurse if you were emotionless. (Sarah)

I think it's just being consistent with the message that you have, and being as nonjudgmental as possible, as frustrating as it is, you kind of have to leave that at the door for your own safety, as well as theirs …They're good at reading people, because manipulation is a way of life...You have to be careful, because if you push the wrong button in the wrong way, then you're not going to be able to continue to work with that patient for next steps of working that path of going in the right direction. (Angela)

When nurses perceived themselves as unable to make a difference, this was perceived as a personal and professional failure, as connection was the responsibility of the nurse. Nurses described the toll it took on them, as according to Kim, nurses "get a little jaded" after time. As nurses struggled to connect, if perceived as unsuccessful, nurses sometimes coped by seeking support from nursing administrators who served as a reliable sounding board: "They were right there with us. They had our back." Supervisors offered assistance, intervened on behalf of the nurse, called physicians, or suggested "communication techniques." Nurse administrators understood the origins of the nurse frustration, as per this narrative of a former administrator:

> So, mindsets of nurses come into play…That can frustrate the family and frustrate the patient. Definitely call you in front of administration, which I was the administrator at the time…You're just tired of, or just feeling inadequate, or like you're spinning your wheels, you're not making a difference. That mindset can cause a spiral effect of your ability to actually care for your patients. (Kim)

Nurse administrators were peace makers and referees, acting as arbiters between patients and nurses. Across the transcripts, nurses described having role support, such as "house supervisors," who were present and engaged in care.

Nurses' responsibility to connect with patients was interwoven with revulsion, which produced conflict. Nurses viewed patients as lacking their corresponding responsibility for their health, self-harming with illicit drugs. Particularly frustrating for the nurse was when the patients' behaviors affected others, such as a baby in utero, as per this narrative:

> The condition of pregnancy sometimes it's incidental. It's not real to her. She doesn't recognize the pregnancy; it doesn't influence her decisions…Sometimes as a nurse, that's really hard to process, to come to grips with, and it'll make you mad as hell. (Kim)

> I hadn't gotten used to the idea that people make their own choices. When those choices affect another person, like a pregnancy, and it's affecting a baby, that's a lot harder to take. (Kim)

Nurses attempted to refrain from judgement giving the "same care" to everyone. However, nurses experienced deep emotional reactions to patients, such as Natasha, who acknowledged "almost disgust," and other study participants who expressed general disdain for this "pain population" because of their lifestyle and choices. Nurses described a population of patients driven to procure and consume drugs despite the consequences, which was "very very frustrating" to the nurse, as per Carly, "these people had their lives dance in front of them and they still chose drugs over that."

Nurses perceived that it was a patient's behaviors that made them "harder" to care for. A patient's behavior of IV drug use was reviled, and yet it was a nurses' duty/responsibility to communicate the dangers of the behaviors to the patients. This was particularly frustrating for nurses, trying to reach into the patient's chaotic world, to connect, to communicate, in an attempt to save them. Educating patients and families was a noted common struggle across the transcripts; nurses were blunt in their attempts to educate, to "lay it out black and white:"

> I feel like that they have probably been told with their first experience that this is your one shot [receiving heart valve surgery]. And they've done it again. I don't know if they

> just, basically, don't remember that, or maybe it was explained above their understanding. But, trying to educate them about the process forward... You feel like getting help… Especially when you are dealing with this type of patient population, trying to get them to understand on a level that they can understand, without being too blunt, but just blunt enough to get your point across can be frustrating. (Carly)

This was a twofold issue for the nurse, who described difficulty reaching a patient as well as their family and visitors, which added an additional layer of frustration, to answer their questions pertaining to treatment options. According to MJ, when nurses were assigned to care for the patient diagnosed with IE from IV drug use, in essence, were adopting "two patients," the patient and their family, whomever that may be, doubling their responsibility. In addition to revulsion for a lack of personal responsibility for their health, nurses were exasperated with the family "drama" that accompanied the patients inside the hospital or clinics. Nurses perceived drama almost as an entity of itself that then invaded their sacred space of healing, threatening them and their world. They struggled with what they perceived as a lack of respect and regard for civil behavior demonstrated by the patient, family, and visitors, as hospitals were places of healing, where calm and quiet were preferred and revered. Nurses working in public health reported similar moments of chaos and danger. Nurses described arguments and fighting resulting in security being called to contend with the situation, described in this narrative:

> A lot of times patients come with a lot of external family issues. So, there's a lot, unfortunately we use the term 'Jerry Springer' to describe it… almost disgust, like really, you can't get your life together. That you're dragging this drama into a hospital where people are trying to get better. You can't just move it; leave whatever angst you have

> going on somewhere else? …Really, it's just from the lack of human decency… and just a lack of consideration, I guess, for the patient, for the staff, for the other patients trying to get better. (Natasha)

Nurses had to work through their emotions to give patients the care they needed. During these "drama" infused interactions nurses experienced fear, frustration, and anger, but continued to deliver care, even when threatened with bodily harm, as described by this narrative:

> So, we were scared, but then police responded quickly and settled the situation. And so, we were okay with it, but we were angered that a patient [threatening bodily harm] like that was allowed to stay...I mean you just have to, what, we couldn't say no, we're not taking care of him. You know, you just have to go with it. (Leah)

Nurses coped with danger by caring in pairs, instructed by administration to use the buddy system, which according to Leah, when two nurses worked together it "stops the behavior right away."

Summary

This theme highlighted the weight of responsibility that nurses bear to care for all patients. Nurses, as per Natasha, "build walls to compartmentalize that behavior" trying to care for the patient without judgement, accepting them for who they are, not who the nurse wants them to be. This theme added richness to understanding the responsibility and associated negative emotions experienced by nurses when caring for patients diagnosed with IE from IV drug use, and their families and visitors, who in essence became hidden patients. The

responsibility of the nurse then doubled, and nurses struggled to carry this additional load of responsibility.

Theme Three: Apathy/Empathy

This theme describes the polarity of caring emotions, as nurses demonstrated apathy as well as empathy toward patients diagnosed with IE from IV drug use. Nurses struggled as they largely perceived the cardiac infection as self-inflicted. Nurses oscillated between apathy and empathy and described a type of conditional empathy. Some nurses described caring moments that entailed profound empathy. Throughout the interviews, the participants described perceptions that patients diagnosed with IE from IV drug use were not as legitimately "ill" as the "other patients," even though nurses described patients as "really sick" with a "horrible illness." Nurses differentiated between patients whose injuries were "self-inflicted," and those that were not, such as patients contracting IE from dental work or cardiac procedures, or patients diagnosed with cancer, or simply dying of old age.

Apathy

There was a pejorative sense of apathy noted when nurses described their lived experiences caring for patients diagnosed with endocarditis that was attributable to injecting drugs. In this nurse perspective, perceptions of patients self-harming created nurse dissonance and distance. Essentially, nurses described struggling to feel for patients with IE, describing them as culpable. Nurses with this perspective viewed these patients as not wanting help, whereas "other patients" "really" wanted help, as described by these narratives:

> You generally have at least one other patient that you're providing care for, who really wants help. And you're just like, why? I like to take care of them [patients diagnosed with

> IE from IV drug use], because they're generally really sick, but from an emotional standpoint they're very draining. (Natasha)
>
> Well, I think it affected care because they were like, 'Well, they're just going to keep doing it.' I think some of them [nurses] questioned why we keep admitting them if they're just going to keep doing it over, and over, and over. (MJ)
>
> It [hospitalization of patients diagnosed with IE from IV drug use] had a negative effect on the floor…Well, it meant that instead, some of them [nurses] viewed it as caring for patients that wanted to be compliant and wanted to get better [versus] caring for somebody that's just going to yell and scream at you, and complain, and be non-compliant and probably back in a couple weeks. (MJ)
>
> I think it was just ... Whenever the coordinator would come in and say, 'We're getting another patient, it's IV drug use,' it was just like you could hear the sighing on the unit, like the nurses were just like, it was a very negative connotation to have to deal with those patients, because a lot of them didn't have insurance and like I said they weren't pleasant. (Amy)

By their descriptions, nurses described being apathetic or less empathic towards patients diagnosed with IE, as nurses had to "deal with," "put up with," and "struggle" to care for these patients described by these narratives:

> ‘Okay, she doesn't want to work with me [nurse fired from room], I don't want to work with her’ [patient diagnosed with IE from IV drug use]. Which isn't the best attitude, but with the frustration and everything and dealing with the other patients, they felt like, ‘Well, I don't have time to sit and argue with this woman. If she won't take her meds, or she won't do this, won't do her rehab, I've got five other patients I got to take care of.’ (MJ)

> When you deal with that behavior and such, it does make it stressing because you feel like even though it's not the correct behavior, it's just the feeling that here I go again. Here's a patient that's non-compliant with her meds properly, she's not compliant with follow up of visits, and now she's back in the hospital. And we're going to start this cycle right over again. (MJ)

Nurses attributed the patient’s illness to their drug use, as patients were deemed as culpable:

> A lot of times, I hear especially more so from ER nurses they'll say, ‘well they did it to themselves,’ so they don't feel sorry at all for them. And that is the way that some nurses feel. (Leah)

Through their descriptions, stigmatization based on IV drug use was illuminated. Nurses were matter of fact in their conversations, forthright, and largely resistant to the idea of addiction as an authentic disease, as per this narrative:

> It's very frustrating taking care of someone who is self-inflicted injury and you see no desire for that patient... Sometimes we've really had them to the brink of death. They're

> on a ventilator. Somehow, they've made it. You know that once they probably get out, that they'll probably going to go right back at it. It's just extremely frustrating. You think, well, you have that thought where, I'll see you soon, if you make it here. (Carly)

Although nurses discussed addiction as a disease, patients' aberrant behaviors appeared to overshadow their reasoning. In essence, it was as if nurses were denoting patients diagnosed with IE from IV drug use as taking up valuable bed space meant for someone more worthy. The frustration was described per this narrative:

> It's a frustrating thing because you know you have these little geriatric patients that come in and they're just super sick and they're... Then, you go to one room and they're really sick from what?... IV drug abuse and they're complaining that the food isn't good and they're not getting enough pain medication. They want to see the doctor. Then you met someone that is sick from whatever unfortunate illness they got or just the fact that they're old and their body's trying to die. Having to change your attitude quickly for people and just deal with that type of pain population, whether it's IV drug users or not, they're a harder patient to take care of, anyway… (Carly)

Nurses described care as frustrating due to the perceived obliviousness of the patients to the trauma they were inflicting on their bodies. For nurses, the lack of empathy for "the dreaded patient" went deeper, as patients diagnosed with IV drug use associated IE were not viewed as a "real" patient like trauma patients who would be more worthy recipients of their care. The endocarditis patients were young, and depending on the functionality of the heart, were generally more mobile, appearing less ill.

> I feel like we get a lot of drug users. A lot of blood review. A lot of alcoholic. You'll hear people say, 'Oh, we finally got a real ICU patient.' Something like that. Or, like, a trauma patient rather than somebody who... It's very frustrating taking care of someone who is a self-inflicted injury. (Carly)

Care was affected, as shared by this narrative:

> I think I feel like they [older nurses] don't check on them as much as what I would or they're not, they're not as kind as far as like pain management. They don't, they won't reassess usually until much later, you know, whether the pain medicine's helping them or not. (Leah)

The care patients received hinged on their behavior. Nurses responded to patient behaviors with a quid pro quo mentality, demonstrating a conditional empathy, as demonstrated by these narratives:

> I feel like it was one of those, 'I scratch your back, you scratch my back,' kind of things, like if the patients were nice and weren't rude, the nurses were more likely to provide better care, because it was just that dread of I do not want to go down there and get cussed out again, or threatened. (Amy)

> There is one…That was really really nice that we didn't mind at all to take care of. I mean they didn't bother us at all. They were very nice and said thank you. They seemed very appreciative. They, I mean, they would talk to you about it and they would say, I know

> I've made bad decisions and I want to do better after this. And I know it's almost taken my life. So that's very rare. (Leah)

Nurses differentiated between patients diagnosed with IE from other causes, such as dental issues or cardiac surgery, as per these narratives:

> Maybe some people that come in with endocarditis from a tooth infection, where they've had some dental work, and explaining that to them, they'll make the necessary changes and they go have dental work and they'll do the right things. But, then, trying to explain it to somebody that's 27 years old who's already had one valve replaced and goes out and they might have a couple kids at home and probably living at their parents' house. They go out and they decide to do drugs again and wind up back in the same situation, it's a what can you say at that point? (Carly)

Another example was provided by MJ, when asked to describe a patient diagnosed with IE that stands out to him, as described in this narrative:

> Well, one, but it really wasn't an IV drug user. It was somebody…that came in originally for CABG [Coronary Artery Bypass Grafting], and went to rehab, went home, and they developed endocarditis, and it ended up affecting them mentally. It's really sad because this person was in the medical field. …That was kind of a sad. (MJ)

The above narrative describes the effect of the disease on the body as the same, but the emotional reaction to the patient was different based upon the method of contracting the infection.

Empathy

Although nurses were largely apathetic in their descriptions of caring for this population, nurses described intense empathy at times, as shown in this narrative by Carly, describing working with the patient and family to understand the trajectory of the illness, bringing comfort and clarity to the situation.

> Usually, we're [nurses] a place for comfort and understanding. We [nurses] are the sounding board…When you're caring for the family, and you're their nurse, and you're there 12 or 13 hours a day with them, you are their comfort and you're the person to explain it [trajectory of treatment]. Often times they want to know, well, what's next, what are their options, even if the physician told them. Just helping them understand what the future holds. (Carly)

In other empathetic descriptions, nurses described unconditional empathy and acceptance as described by this narrative:

> People hear it be said in the healthcare profession, 'They brought this on themselves'…Then you have the nurses that think more like I do on those lines, that it doesn't matter why he has it or how he obtained it, or if he brought it on himself or if this was natural causes, or anything. That they deserve the same respect as your grandmother would. (Sarah)

Nurses described profound empathy and compassion as they held the hand of the dying:

> The ones that die alone, they stand out, they stick with you. Because you're there, holding their hand. You are their loved one at that time. (Sarah)

Nurse Amy demonstrated empathy through boldness, daring to speak truth to a dying young patient, having a "heart to heart" discussion with him, when providers were not "brazen enough" to tell him that he was dying. This is her narrative:

> They were skirting around the fact that his heart was failing, and that he wasn't eligible for surgeries of any type, and that at that point, when his entire body was slowing up, they couldn't get the fluid off, the medications weren't working, and he was refusing to eat or do therapy or even take his medications, sometimes. I don't think they were brazen enough to go and tell this young man [that he was terminal], and then after I told him, I went to the doctor and I said, 'I told him what was going on, and exactly the nature of his illness,' and the doctor thanked me. (Amy)

Nurses cried with parents, "I just came around the desk and we just hugged each other, and we just cried." Nurses described trauma informed encounters, as they realized that many patients had suffered adverse childhood experiences (ACE), questioning "what has happened in their life that they chose to do this?" Nurses in the public health setting went into homes and cared for families in the throes of addiction with the awareness that addiction is an all-consuming disease and the knowledge that ACE trauma trickles down to the next generation. Nurses in the public health arena described their role as becoming a "safety net," and that they were there to assist patients and families in the throes of addiction to find their way back to paths of healing.

Nurses described cases of advocacy, such as when nurses intervened when pain management was insufficient, such as for a patient denied pain medication after a cardiac procedure, as described by this narrative:

> There was a situation where one of the doctors was like, 'This is all the pain med I'm going to give.' And this particular patient did have a procedure. I remember that nurse going, 'Well, this is inadequate. So, we do have to do something.' She did advocate on the patient's behalf. (MJ)

Nurses approached an ethics board to resolve another pain medication concern. Three nurses described spending a great deal of time working to facilitate patient placement into various drug rehabilitation programs, which sadly ended in frustration, with either patients leaving rehabilitation or relapsing and dying. This narrative describes the role of the nurse to move on after learning of her patient's death post stay in a rehabilitation center:

> It was disheartening, but on the other part of it, your job is to do everything that you can for the next patient as well. So, you can't get disheartened to the point where you think this is going to be every patient. (Sarah)

Summary

This theme highlights the duality of apathy and empathy nurses experience while caring for patients in the throes of addiction compounded by IE from IV drug use. There was a noted apathy regarding patients whose diagnosis of IE was due to IV drug use, as compared to patients whose IE had a different etiology. Empathy was largely described as conditional, contingent on knowledge of adverse childhood events that could have influenced a patient's behavior, or dependent on "nice" patient behavior while hospitalized.

Theme Four: Grief and Sorrow/Cold and Unemotional

This theme encompassed a polarity of emotions experienced by nurses involved in end of life situations caring for young patients diagnosed with IE from IV drug use in Appalachia. Nurses described experiencing grief and sorrow caring for young patients thrust into end of life situations. Nurses watched as young people in the prime of their lives were dying from metaphorical and literal broken hearts, helpless to stop it. Not all nurses grieved, as some appeared cold and unemotional when describing these intense end of life situations.

This theme pertained largely to care delivery at the time of impending death. Nurses' described caring for imperfect people, young people who "made some bad mistakes" but didn't have "the chance to recover from that like most young people do." Nurses described their experiences working with these patients as difficult, and some were traumatic, as nurses cared for young patients with a "horrible illness" that had devastated their bodies and ultimately resulted in death.

Nurses described looks of indignation or shock as patients and families were delivered lethal messages from physicians, either that patients were ineligible for a first heart valve replacement surgery or told, "you've already been given this chance and you've blown it." In essence, nurses described being the ones standing there when the physicians left, having to reiterate the news. Nurses described having to deliver these solemn messages on the grim "ramifications of their actions." Nurses described the endless questions from families as stressful and emotionally draining. Nurses described their role as a type of medical translator, delivering the same message, but having a different impact. This is one area where nurses perceived the ability to penetrate the patients' armor of denial. Carly described this phenomenon as trust, as patients "can handle" medical explanations better from the nurse compared to the physician. Nurses facilitate treatment trajectory discussions, as per this narrative:

> When you're caring for the family, and you're their nurse, and you're there 12, 13 hours a day with them, you are their comfort and you're the person to explain it. Often times they want to know, well, what's next, what are their options, even if the physician told them. Just helping them understand what the future holds. (Carly)

Nurses described the questions of family as incessant and described themselves as emotionally drained from the onslaught of questioning. Nurses relied on coworkers to share the burden, as per this narrative:

> Calling on your buddies to help you out… With patients and/or families who are trying. Because sometimes you just don't have the energy to go in that room yet again and answer the same questions over and over again. (Natasha)

Nurses were placed in the position of having to reinforce physician lethal messages, which was challenging, per this narrative:

> I feel like I explain a lot of things over and over again and every provider that goes in the room, I feel like they try to say it to somebody, and they act like every time they're being told [treatment options], that it's something new. But, when you're, particularly when you're talking to somebody that's young, it's trying to explain to them, okay, so this is what this is and the... And they have this look on their face that you're not sure if they're indignant or not. How else can I explain this?... Don't just Google endocarditis. (Carly)

Although the illness and resultant refusal to replace a heart valve a second time was noted as sad, there were some nurses in agreement, or nurses who described feeling torn, oscillating

between grief and culpability. Notably, not one study participant shared an experience questioning a physician's decision to not operate a second time, as patients were deemed as hopeless and surgery pointless. During the interviews, nurses generally engaged the researcher in conversation about end of life issues, or patients denied a heart valve surgery, earlier in the interview, bringing the inflammatory issue to the forefront. Nurses described their emotions when patients were not "eligible" or "too ill" for surgery, or when they continued to use IV drugs after a heart valve replacement, as per these narratives.

> The patient had already had one valve replaced and had gotten vegetation on the new valve. And the doctor did not feel that going in and replacing the valve again would be a thing to do. The patient continued to use IV drugs after the new valve. It's frustrating because you think that, that is... I believe if it might be from another cause that they would go again and possibly replace. But, at the same time you're torn, and you're frustrated with the patient too because you're, like, you've already been given this chance and you've blown it…Trying to explain this to someone who's already been through the process and healed and still chose to shoot up. Very very frustrating. (Carly)

> One patient had had surgery…And so he kind of stood out. He did have the surgery, but then they said that he continued to use afterwards, and so he was sent home on hospice. I don't know his situation or anything, but he did receive hospice at home. It was sad for me because I felt like he was given another chance, like maybe the surgery would've helped and he could've recovered from that, but then he chose not to, like his illness was so severe that he wasn't able to overcome it. (Amy)

Nurses' emotions of grief and sorrow were expressed, as nurses described witnessing the death of young people whose lives were cut short:

> When you get to the point where they actually do pass, when I take care of my patients when they're gone and we're getting the body cleaned up and taking everything out. It's just very sad. It's usually just a younger person and their bodies are just demolished. (Carly)

> To me it was sad, because the history of IV drug use itself isolates the patient from their family and people that care about them, so there's not a lot of people there for them in the end. There's not as much comfort…You want to be sure that your patient knows that you're in the room [when they die], that somebody does care for them. (Sarah)

Nurses described dispositioning patients to the morgue or funeral home, and experiencing trauma caring for these individuals and their families. Carly described caring for patients with IE from IV drug use that had attempted suicide that resulted in brain death; she was in the middle, caring for the family, "keeping the body alive" while working under the pressure of "playing beat the clock," trying to make arrangements with organ transplant teams, trying to control all the moving parts of the process, as "when you have a donor patient and every second that goes by is a potential second that something could go wrong with one of the organs." Situations such as this were "very distressing for all of the people involved."

The deaths affected the nurses even outside their regular nurse world and invaded their personal world; the starkest example was this narrative:

> I was caring for a young patient who was a few years my junior… the doctor said that they were terminal and that they weren't going to make it for maybe a few weeks, if that, but no one had addressed it with them. No one had been honest, and…so I just went in and had a heart to heart with them… 'You're telling me I'm going to die? You're telling me I'm going to die?' And I'm like, 'Yes, you are,' and it was like the first time that it had hit them…They were so young…So it was very hard for me to deal with, to come home and try to leave my work at work and not think about it. (Amy)

Caring for these patients caused turmoil for the nurses. Nurses shared stories that had stayed with them, as there were "things that come up and that have actually happened after many, many years." Telling their stories was important, as "there was one story that I just wanted to tell you about" like "my worst day as a nurse," as some of these experiences "cement in your brain" or "messed with me. It messed with my head for a few days." You could hear the agony in the nurses' voices as they reminisced about caring for young people whose lives were cut short by addiction.

Cold and Unemotional

In contrast, there were nurses whose expressions and descriptions of caring for patients diagnosed with IE from IV drug use in Appalachia were cold, nonchalant, somewhat disconnected, and "calloused to the process." Nurses worked with patients that were "difficult" and "hard" to take care of, death was not a "surprise," as nurses "could kind of see it coming, it was going to be an eventual thing," as descried by this narrative:

> Well, there was one particular, one that came in quite frequently because of the drug use, and it was IV drug use, and she ended up developing… endocarditis… eventually that

> patient developed vegetation and required…a valve replacement…It didn't seem to slow them down. They shortly came back, and eventually ended up dying because they were not compliant with discharge treatments… Passing at a relatively young age… Caring for her was... I hate to make it sound like we dreaded whenever seeing her name on the board, but it did mean that. (MJ)

These nurses appeared devoid of emotion, as they were forthright in their descriptions of their experiences. Nurses provided the necessary care for patients, and yet refrained from emotional investment, maintaining a distance. These are examples of their narratives:

> I like dealing with cardiology, because they are very frank about the expectations set forward if the patient has not had a valve replacement before, and cardiology's offering it, that this is your one shot you get. We'll replace your valve once. If you choose to use again and that valve becomes infected, we will not provide you any surgical interventions after that. It's really taking a stand on misuse of resources. (Natasha)

> We don't really get vested in most of our patients, especially when we know this is a repetitive process. So, I don't think for most of those patients, that we get very vested. You know we only see them for a few hours. (Hazel)

Natasha went on to describe a patient's reaction to being refused a repeat heart valve replacement as per this narrative:

> They [the patient] were flabbergasted. Like, they had had their valve replacement, and were told this is your one shot, and they continued to use and came back with

> endocarditis again, And they're like, you can have medical management, but that's it, so you can get antibiotics, but we will not replace your valve again…They [the patient] were just shocked that they told them that. Like, someone told them no. Someone told them that you've done this to yourself; we've exhausted the amount of resources that we've going to dedicate to you. You're done. (Natasha)

While interviewing these nurses, the tone of their voice and expressions appeared resigned, as they did not succumb to the "emotional draw" these care encounters could have had on them. The frankness of the providers to the patients was appreciated, because these patients had used up valuable healthcare resources, "expending a lot of the time, money, and resources on someone who doesn't want to change."

Summary

This theme illustrates the sorrow and grief that nurses endured while caring for young people with a devastating infection, compounded by the disease of addiction. Conversely, this theme highlighted the callousing of emotions that occurred over time, as nurses emotionally disengaged, as in discussing the grim ramifications of patients' actions. The richness of these descriptions adds to the meaning attached to the emotional experience of caring for patients diagnosed with IE from IV drug use.

Thematic Structure

The themes: guarding/escaping, responsibility and revulsion, apathy/empathy, grief and sorrow/cold and unemotional are shown in the diagram of the thematic structure see Figure 4.1. The background is red, for the dangers that addiction poses on health. The green circle denotes the opioid crisis as a starting point, leading patients on a dizzying journey, thus the off centered

circle. The pinkish purple center is core, the theme that highlights a nurse's view of care as futile, thus making their efforts in vain with nurses experiencing hopelessness and conversely, hope. Some nurses experienced glimmers of hope, transforming their views of IE patients and being determined to not be disheartened, instead they kept moving forward to help others; this is the grounding theme to which all others are connected. A blue ring runs through the additional themes, making all themes interrelated. Theme two, the orange oval, the color of jail clothing, denotes guarding/escaping, this is the first theme as patient's are brought into a contained environment with the purpose to protect or guard them from drug use, guard them from themselves, guard them from others, as well as nurses guarding themselves. Care is particularly frustrating and both nurse and patients may wish to escape, as patients desired to do IV antibiotics at home, and nurses devised means to escape the room for a moment. The second them, the yellow oval, responsibility and revulsion highlights that nurses honored their duty to care for patients, regardless of how they felt about them. The third theme, bluish purple oval, empathy/apathy demonstrated that largely there was apathy toward patients with IE, as nurses viewed their condition as self-inflicted, but there were some strong empathetic caring exchanges noted between patients, nurses, and family and visitors. The fourth theme was grief and sorrow/unemotional as nurses described being sorrowful and grieving for patients with IE, while others appeared cold and showed little emotion, emotionally distancing themselves from the patient. All four global themes are derived from the central theme of helplessness/hope.

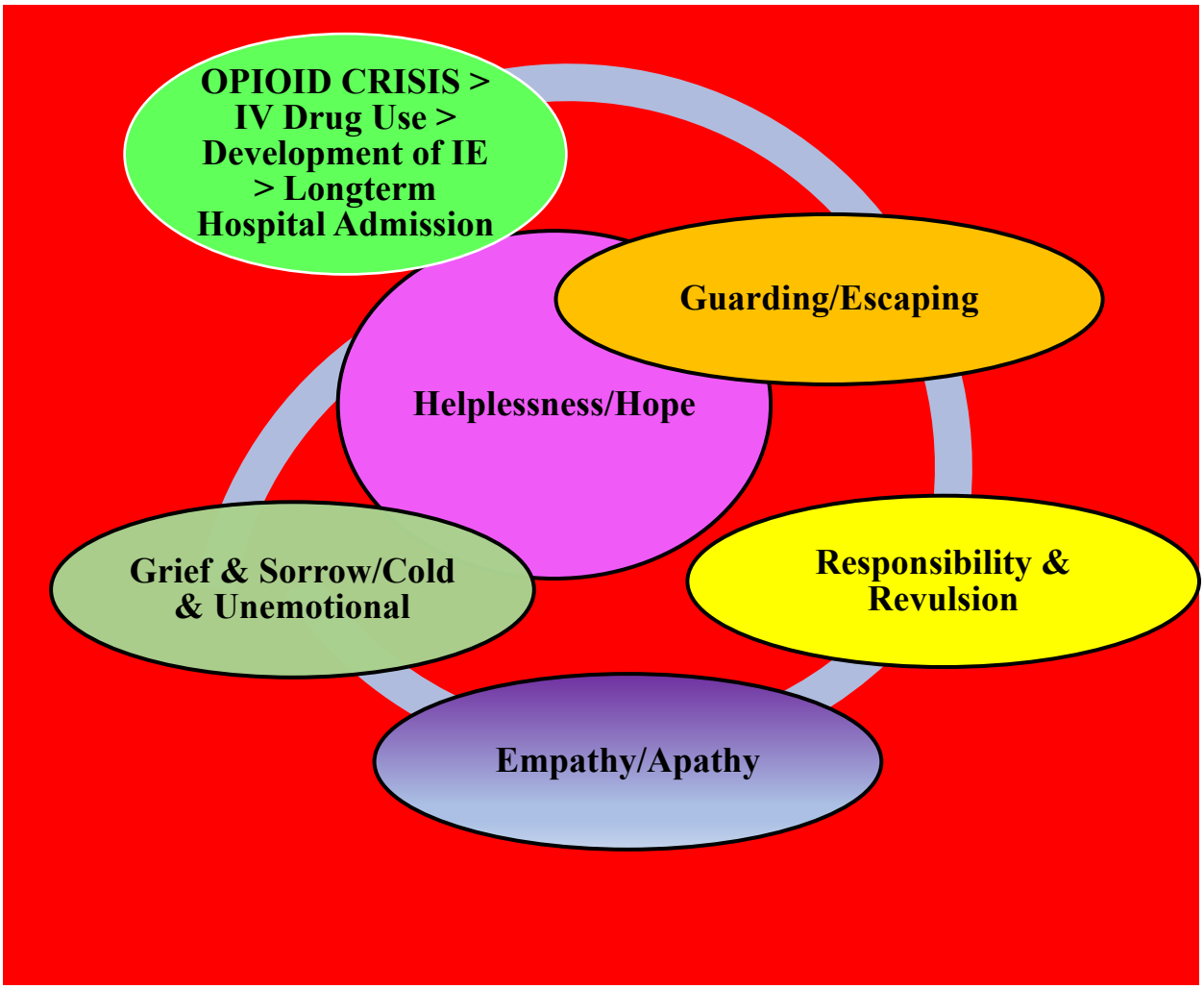

Figure 4.1 Encompassing theme and global themes for the phenomenon of nurses' caring for patients with IE from IVDU in Appalachia, a downstream effect of the opioid crisis.

Summary

During the time of the opioid crisis, nurses are experiencing an increase in patients with IE from IV drug use in Appalachia. The five themes that emerged from the nine interviews in this study of the lived experience of nurses caring for patients diagnosed with IE from IV drug use are contextualized by the existential grounds of world, time, body, and others. The nursing

world in which these themes are contextualized is full of organizational rules and expectations of behaviors while confined in the facility. The nurses experienced a wide array of emotions from dread, to disdain, to anger, fear, and helplessness. Nurses were tasked with keeping patients contained in a controlled environment, creating mental and physical exhaustion, as nurses remained in continual motion and on the lookout for suspicious activity.

Keeping patients was particularly frustrating, as the nurse transitioned into a guard, literally keeping watch to ensure that the patient remains unharmed. In frustration, nurses devised escape plans, almost without knowing they were devising them, as they made a way of escape prior to entering the unknown chaos. Although bothered by the appearance and "sketchy" behaviors of the people that surrounded these patients, nurses honored their responsibility to care for these patients, just having to "go with it." There was a struggle occurring within the nurses to comprehend SUD as a disease, as these patients should not be in the hospital occupying a bed and demanding the nurses' time, as they were young and mobile. It mattered not that some of their hearts were failing, as they were perceived as self-inflicting their illness. Nurses demonstrated less empathy for these patients as they attributed their illness to their drug use. Watching young lives be destroyed by addiction and subsequent illness produced profound sadness, as the gravity of the patient's heart condition was revealed. Nurses struggled to explain the ramifications of these young people's actions, as they translated the doctor's treatment options. Emotional distance was a possible strategy for discomfort, as nurses discussed being emotionally uninvested and calloused by years of practice.

The thematic structure is presented below as in a first-person narrative, a common methodology used in phenomenological research (Sohn et al, 2017). The essence of the lived

experience of nurses that emerged from these nine transcripts is described in the following paragraph.

Are you serious? They assigned me the dreaded patient that means I am to be the jailer, guarding my ward, watching him, watching his visitors, watching myself, to stay clear of any drama. It is okay though, we have an escape system in place for when I am tired, we'll rotate patients if needed and we can take turns going in to care for the patient, to give me a break. I hear he threatened the nurses on night shift, and the police were called, "he's such a pain." I won't hesitate to care for him though, it's my job, nor treat him any different. His room is full of strange people and they're fighting, they make me uneasy, but I take my nurse friend in with me, we have a duty to care for our patient, and that's what we will do. I feel for him because he is really sick, but he is keeping me from caring for my 90-year-old patient down the hall, and that's frustrating. My job is to help him, regardless of how frustrating it is sometimes. His family had a lot of questions about his future, which made me uncomfortable. I learned today that the doctor is refusing to do a repeat valve replacement and is discharging him to hospice, it bothers me, it's so sad, he is so young. Part of me is torn though, because I feel like he already had a shot and "he blew it." I wish him and his family the best and feel unsettled the rest of day. All of his care was in vain, as nurses, we just spun our wheels, unable to reach him in time. I go home, still thinking about it. In a couple of days, I come back to work, and I have a new admission coming in, another dreaded patient, a young woman in her early 20s who uses IV drugs, and this is her first episode of IE. I am hopeful that I can make a difference with this one.

Chapter 5

Discussion

The purpose of this existential phenomenological study was to gain an understanding of the lived experience of nurses caring for patients diagnosed with IE from IV drug use in Appalachia, an unexplored phenomenon. This study was guided by the existential philosophy of Merleau-Ponty to discover the meaning nurses attributed to their lived experiences caring for a vulnerable population of patients with SUD while working in the Appalachian Region. The researcher conducted nine interviews with nurses who self-reported as having experience with this phenomenon. In this chapter, the elucidated themes are explored and related to findings in nursing literature. Nursing implications are explored, as they relate to nursing practice, nursing education, and health policy. In addition, recommendations for future research are made and strengths and limitations of the study are reviewed.

Study Findings Related to the Literature

This phenomenological study elucidated nurses' perceptions of futility as they experienced a sense of helplessness to change the outcomes of patients diagnosed with IE from IV drug use in Appalachia. This study elucidated a gap in addiction science literature and nursing science. Nurses in frustration wondered, "is there really any point?" Perceptions of patients diagnosed with IE from IV drug use were largely pejorative, which aligned with the literature (Ford et al., 2008; Ford, 2011, van Boekel et al., 2013). Nurses experienced negative emotions while caring for this population of patients, viewing them as culpable for their illness. Nurses described feeling torn when patients were denied heart valve surgery, either a first surgery due to ineligibility or a repeat surgery, but interestingly, not one nurse spoke of addressing concerns

with the physician. Nurses appeared to accept the patients' plight in stride, as medically justifiable, "taking a stand on the misuse of resources."

Overarching Theme

The central encompassing theme illuminated that nurses viewed the care for this population as a struggle of futility, which highlighted a general view of prognostic pessimism in regard to addiction. The online Merriam-Webster dictionary (2020) defines *futile* as serving no useful purpose: completely ineffective, or in other words, hopeless. Meltzer and Huckabay (2004) defined futile care as performing treatments or measures to sustain life that lacked medical benefit, unable to end a patient's dependence on intensive medical care. Extrapolating from this, nurses in this study described frustration that the care they delivered to patients diagnosed with IE from IV drug use was not enough to end their patient's dependence on illicit drugs, and thus any treatment they rendered was deemed as futile. There was one study by Horner et al. (2019) that echoed the hopelessness and apathy that nurses experienced caring for patients with SUD, as this care was perceived as futile.

Participants in the current study felt as if they were "spinning" their wheels, unable to make an impact, which was consistent with Horner et al. (2019) in their theme, feelings of burnout. When nurses felt ineffective, they detached and disengaged, and then fell into delivering care that was dissonant (Monks et al., 2013). Nurses described patients as suffering from a "horrible illness" exhibiting obvious signs of heart failure, but they were not viewed as "real patients," because their disease was self-inflicted, and nurses questioned "why did you even bother to come in?" Nurses described caring for patients who were "really sick" with some deemed terminal. Nurses described caring for patients who were on comfort care, dispositioned to hospice, the morgue, or funeral home. Nurses cared for young patients in end of life situations.

Nurses described patients that were “scared, they don't feel good. They know they're in bad shape,” which took “a lot of emotional energy to deal with them.” Nurses were overwhelmed and frustrated by patient’s behaviors and lack of resolve to get better, most likely going to “be back in a couple weeks,” and so nurses felt like declaring “enough already.” Recidivist drug use was particularly frustrating, as when post-operative heart valve replacement patients returned with new valve infections, they were deemed a “lost cause.” These patients had played a “stupid game” and won a “stupid prize.” Participants in the current study were particularly “frustrated” with these scenarios, as they then had to explain the grim ramifications of the patient’s actions. Horner et al. (2019) touched on the emerging ethical dilemma that nurses experience caring for patients diagnosed with IE from IV drug use by a quote the authors used in elucidating their theme, feelings of burnout.

> So say a heart surgeon, it’s an IV drug abuser, and they have a really bad valve or an infected valve, and they have to do a surgery to replace it, and then they have to do it a second time, and then they continue doing their drugs, at what point do you stop offering lifesaving surgeries? Because they keep doing these drugs that are killing them, pretty much…surgeons say, ‘I’ll do it twice, but I won’t do it a third time’ (p. 8)

According to Melia (2001) nurses generally accepted that death was inevitable before the physicians, sometimes declaring that “enough is enough” (Melia, 2001, p. 712). According to Wiegand and Funk (2012) end of life issues cause nurses the most distress, especially medical futility and organ transplantation (Wiegand & Funk, 2012, p. 482). Heart valves are not a scarce resource but conversations of eligibility or ineligibility concerning surgery may cause similar distress, as in the study by Elpern et al. (2005); nurses were distressed over patients with SUD

receiving organs as one nurse stated “I will NEVER donate my liver” (p. 528). Nurses were particularly distressed when patients were “considered for a second transplant after suspected drug- or alcohol-related graft failure” (p. 529).

Nurses in the current study perceived patients as not “really wanting help,” and attributed their illness to their poor choices and continued drug use. Pauley et al. (2015) found that patients with SUD endured “stigma, discrimination, and dismissal in daily life” (p. 123), as nurses addressed patient “poor choices in their life” as part of the problem (p. 126). When patients are “noncompliant,” care decisions may be overshadowed with frustration, as patients perceived as not caring may compromise “our humanism” and conversations may turn to “musings about the waste in medical care” (Kirkpatrick, 2010, p. 779). Conversations of futility thresholds are in the literature (Hull & Jadbabaie, 2014) but the nurse voice is notably absent.

Some participants in the current study described tenets of hope, reminding themselves not to get “disheartened” with setbacks, while other nurses experienced transformation realizing that patients “really do care. They just don't know how to overcome their illness.” This finding aligned with Abram (2018) who noted nurses as hope peddlers in their role as cheerleader. The findings of transformation of the present study align with Gray (2012), Johansson and Wiklund-Gustin (2016), and McCall, Phillips, Estafan, and Caine (2019) in regard to caring for patients with SUD.

Theme One: Guarding/Escaping

In this theme, *Guarding/Escaping,* participants discussed the difficulty of “keeping patients” in the hospital long term for antibiotic therapy. Nurses described the rules that were placed on patients while hospitalized and the frustration they experienced trying to enforce them, a finding consistent with Abram (2018), as taking care of patients with SUD was “emotionally

draining" (p. 4). In thie current study, the care was noted as highly demanding with nurses on the move constantly, leading to both a physical and mental toll on the body. The complaints of physical exhaustion in the role of caring for patients with SUD was not found in the literature, possibly a new finding. Nurses are by nature of the role vigilant when giving care, tasked with overseeing the health and wellbeing of a vulnerable individual, protecting those under their care. When patients were diagnosed with IE from IV drug use, nurses reported a heightened sense of vigilance.

When nurses are forced to "keep patients," this role becomes convoluted as nurses literally guard their patients from harm inflicted by themselves as well as others, who nurses perceive as having a malintent to harm their patient. Nurses then guard themselves from being entrapped in the "drama" that threatens to keep them from performing their duty. In this role, nurses were forced to guard individuals they did not perceive as vulnerable, rather as "manipulative," crafty and culpable for their illness. Patients disrupted the calm and quiet of the hospital, which is the nurse world; this is not the patient's world, as their world is one of chaos and when they enter a "straight place," this can be rather distressing (McCreaddie et al., 2010).

Chaos to the patient who uses IV drugs is normal, but a clash of worlds occurs between the nurse and patient, as nurses became enforcer of the rules and regulations of the hospital. Elements of the guarding theme were found in the literature with Abram's (2018) study addressing the role of nurses as rule enforcers and Gray (2012) addressing boundary setting. Gray (2012) noted the erratic behaviors of patients with SUD as emotionally draining while Johansson and Wiklund-Gustin's (2016) study illuminated nurses as vigilant guardians, ensuring and maintaining boundaries while safeguarding themselves. Neither of these studies addressed the physical complaints of exhaustion as described by nurses in the current study. In the

McLaughlin, McKenna, Moore, and Robinson (2006) study, health care workers always had "their guard up," and would "prefer to run a mile" rather than care for a patient with SUD. Nurses in the current study described devising means of "escape." Nurses setting up escape plans was not found in the prior literature, possibly a new finding. Participants in the current study described patients as aggressive, culpable for their own illness, and manipulative, which was consistent with Ford's (2011) findings. For these reasons, nurses then transitioned into a policing role (Ford, 2011; Horner, 2019).

Theme Two: Responsibility and Revulsion

In this theme, nurses demonstrated a conflict, as they recognized their responsibility to care for patients diagnosed with IE from IV drug use, but they described themselves as having revulsion to how these patients conducted their lives; these findings were echoed in the literature. Nurses struggled to understand patients who they perceived as self-inflicting their injury, a finding consistent with Brener et al. (2010) and Ford (2011). A particularly frustrating aspect of the current study were the incessant needs of patients and their family and visitors, as nurses described them as requesting "tons of food and drinks" "constantly" or blankets, as example. Nurses in the current study noted that in essence, they were adopting two patients when they received this assignment, which caused frustration.

The patient's family essentially became the nurse's "adopted patients," or hidden patients, doubling their load. In essence, nurses described people who were hungry and possibly suffering from food insecurity. Informal caregivers often suffer in silence as care is focused on the patient. The phenomenon of the hidden patient was elucidated in a paper by Fengler and Goodrich (1979) that highlighted the difficulties informal caregivers endure. The hidden patient phenomenon has been studied in Alzheimer's disease (Gannon, 1994), older adults (Emlet,

1996), palliative care (Kristjanson & Aoun, 2004), and cancer (Hoerger & Cullen, 2017). The informal caregivers of patients diagnosed with IE from IV drug use are possibly a new dimension of the hidden patient phenomenon in need of elucidation.

Nurses were largely unhappy with the responsibility of these "difficult" care assignments, which aligned with Ford et al. (2008). However, nurses in the Ford et al. (2008) study reported feeling unprepared and unsupported in their role to care for this population of patients. Multiple studies in the literature highlighted the need for substance use education (Abram, 2018; Ford et al., 2008; Ford, 2011; Gray, 2012, Gerace et al., 1995; McLaughlin et al., 2006; Monks et al., 2013; Morgan, 2014; Natan et al.; 2009; Neville et al., 2014; Norman, 2001). Contrary to these findings, only one nurse in the current study reported feeling educationally unprepared to care for patients with SUD. In the Ford et al. (2008) study, nurses reported having a paucity of role support; this finding is contrary to the current study as nurses reported being well supported in their role by administration, "they had our backs."

Nurses' negative reactions to patients' behaviors in the current study aligned with Natan, Beyil, and Neta (2009) as these researchers found that individuals with SUD were reviled and perceived as difficult. In their study, nurses who had negative attitudes towards a patient's drug use perceived that in real life caring scenarios that they would give lesser quality care. When nurses in the current study were confronted with negative patient behaviors, such as being insulted, it made them "want to sit there even longer and not give it [pain medication], just because of the way they were treating you," which aligned with the findings of Morgan (2014). However, regardless of feelings, nurses described their duty to care for these individuals, a finding supported by Neville and Roan (2014) whose first theme was an ethical duty to care, despite negative perceptions. Elpern et al. (2005) addressed that "some patient assignments

become unbearable" (p. 525) with nurses experiencing a sense of dread. This finding aligned with the current study as nurses described similar feelings when caring for patients diagnosed with IE from IV drug use who were deemed as the "dreaded patient."

Theme Three: Apathy/Empathy

The findings from this study are consistent with Corley and Goren (1998) who described that patients with SUD can bring out the dark side of nursing. According to Olsen (1997) "empathy, caring and concern for patients are not morally neutral" (p. 517). Nurses view patients through a lens of "empathetic maturity, moral sense, and belief in the advocacy role;" it is this view that may lead a nurse to stigmatize a patient based on characteristics (Corley and Goren, 1998, p. 110). Nurses in the current study demonstrated a lack of empathy for patients perceived as self-inflicting their illness, which aligned with Brener et al. (2010) and Ford (2011). Patients diagnosed with IE from IVDU were labeled as noncompliant, a characteristic that nurses in the current study particularly struggled with, as nurses did not view them "as ill," with some patients not even considered "real patients." These findings align with Gilchrist et al. (2011) and Brener et al. (2010) who reported that a lack of regard for addiction as a disease exists. When health care workers viewed drug use as under the control of the person, the patient's illness was then attributed to the person's drug use (Brener et al., 2010).

Although nurses in this study were pejoratively negative towards patients with IE from IVDU, there were nurses who demonstrated profound empathy and understanding toward their patients. Nurses who had encountered addiction in their personal world, whether a family member or friend, were more empathetic and responsive towards patients with IE, which was supported in the literature with Neville & Roan (2014), noting that nurses with personal history of addiction demonstrated more empathy. Nurses described many of these patients as wounded,

as many came from backgrounds of trauma, aligning with elements of empathy noted in McLaughin et al. (2006), which addressed that some nurses'are aware of their patient's painful past.

Theme Four: Grief and Sorrow/Cold and Unemotional

Nurses in this study found themselves caring for young people in end of life situations. According to Kisorio and Langley (2016) end-of-life care was difficult, as nurses considered it "painful, touching, traumatic, heartbreaking, depressing, draining, disturbing and stressful…the young ones touch me the most because they still have the future" (p. 33); similarly, the nurses in the current study experienced grief and sorrow. However, there were no discussions questioning treatment options by the nurses in the current study. In the study of Kisorio and Langley (2016), a noted theme was that nurses in end of life situations felt unheard and having no say so in end of life conversations. Nurses in the current study experienced sadness caring for young patients whose bodies were "demolished" and lives were cut short, a finding that echoed in the literature (Horner et al., 2019; Kisorio and Langley, 2016). Nurses in the current study described moments of collective grieving as they reminisced about patients that touched them, sharing moments of "things that they had said that helped brighten our day, and not just what we had done for them," that helped them cope. Moments such as these were supported in the extant literature on nurse grieving and closure (Brunelli, 2005).

However, in the current study, nurses at times described the polar opposite of being saddened, as some nurses were cold and unemotional, emotionally uninvested. This emotional distancing was supported by literature on grief, as nurses in painful situations often used emotional dissociation as a means of protection (Shorter & Stayt, 2009), which is possibly relevant to the current study. Nurses in the current study described being emotionally depleted

and drained; these patients were a "burden" to them. Nurses described becoming calloused, which occurred when nurses were placed in difficult situations such as caring for belligerent patients. These findings were consistent with Froggatt (1998) study where nurses described emotional pain as "a drain for them or a burden," with some nurses experiencing hardening (p. 334). Distancing and hardening were means of self-protection. Hopkinson (2003) found that nurses distanced themselves, otherwise they would be 'exhausted,' unable to do their job. In the current study nurses addressed communication with patients, families, and visitors as particularly challenging. This finding was supported in the literature, as questions concerning end of life issues were particularly uncomfortable for the nurse, as they too were unsure or uncertain of the outcomes (Hopkinson, 2003).

Nursing Implications

Nursing Practice

The findings of this study have several nursing practice implications for nurses who are experiencing a rise in hospitalizations with patients diagnosed with IE related in IVDU in Appalachia. It is imperative for nurse administrators to realize the physical and emotional strain these nurses endure while caring for what they perceive as the "dreaded patient." The development of a formal work force educational initiative would benefit administration and upper management enhancing their understanding of the problem and arming them with the requisite tools to support nurses in the system. The initiative should include basic addiction science overview, best practice standards, advocacy, creation of staffing metrics for nurse to patient ratios, and illuminating the administrative/managerial role as mentor. Nurses in this study addressed how essential administrative and managerial support was when they were caring for patients diagnosed with IE from IVDU; "they had our backs." This initiative would benefit

the nurses on the ground, upholding and mentoring them in difficult care situations (Horner et al., 2019), asking how they can best assist them. Once administration completes the workforce development initiative, nurses would then complete the training, arming them to serve as support and peer mentors to their fellow nurses.

Participants in the current study described being mentally and physically exhausted from caring for patients with IE from IVDU. According to Horner et. al. (2019) nurses expressed "frustration and exhaustion in working with what they considered a more 'demanding' patient population" (p. 7). For these reasons, it is crucial to explicate the components of care that are the most difficult for nurses with the purpose of developing care standards to ameliorate or mitigate exhaustion. In this current study, nurses described pain management as particularly frustrating. The development of a pain contract is a potential strategy to set transparent standards of pain management that both physician, nurse, and patient agree upon. According to Horner et al. (2019) the implementation of a "pain contract" between the nurse and patient was instrumental to decreasing nurse frustration (p. 9).

Nurses in this study struggled to see patients diagnosed with IE from IVDU as "real patients" deeming them "not as ill" as other patients, as nurses think these patients culpable for their illness. According to Horner et al. (2019), a nurse's fear of patients and a fear of being manipulated fueled nurses' guarding behaviors, as nurses then inclined to police patients. Reactions were reciprocal as when patients encountered harsh attitudes from nurses, they may react accordingly (Monks et al., 2013). Nurses in this study were frustrated in their role of keeping patients contained in the hospital for prolonged time, monitoring their activity. During this time, nurses had to contend with patient maladaptive behaviors that were similar to behaviors seen in the carceral system. In addition to dealing with maladaptive behaviors, nurses

simultaneously dealt with the people that surrounded the patient, such as family, friends, or visitors. A workforce development training to arm nurses with the communication tools to deescalate a situation is vital.

In addition to frustration from behaviors of patients and their families and visitors, nurses felt as if their assignment load was doubled, as they had the patient and their family as adopted patients. Nurses need adequate time to address and assist the family too. Family members are in an informal caregiver role and they too suffer the burden of the patient's addiction and subsequent illness; they become hidden patients. The hidden patient is a phenomenon seen in the role of the informal caregiver of patients who have cognitive decline or are critically ill, but not well elucidated in the realm of addiction. Nurses were frustrated with the incessant requests for food and drinks for the patient, family, and visitors. These types of request should be a red flag to the nurse that this family may be in need of a referral for resources, as homelessness and food insecurity are problematic. Food is medicine. Sadly, a medicine that not all people have the ability to afford. There are 41 million people who suffer from hunger in the United States, the nation leading the world's food production (Feeding America, n.d.). In Tennessee, one in seven people is food insecure and struggle with hunger (Feeding America, 2020). Nurses can screen patients for food insecurity and refer them to organizations that can provide resources such as emergency food boxes.

Another option is to incorporate a screening tool into the electronic medical record (EMR), such as Hunger Vital Sign. A food insecurity screener embedded within the EMR may prove beneficial, streamlining resource connection (Feeding America, n.d). In Appalachia, health is intertwined with socioeconomics in a symbiotic relationship that acts as drivers of poor health (ARC, 2017). It is vital for nurses to grasp the relationship between disease and social

determinants of health. A work force development training for nurses on screening for social determinants of health and the building of a food insecurity screening tool into the EMR may supplement the needs of the family, benefitting a vulnerable population.

Nursing Education

The findings in this study echoed the literature as nurses on the frontlines of care held largely pejorative views of individuals with SUD. Nurses play a key role in providing care to this population and thus educating nurses on how to meet the care needs of this population is crucial. Nurses in the current study struggled to comprehend SUD as a chronic debilitating disease. An educational strategy may facilitate nurses' grasp of addiction as a disease. Nurses across the literature felt unprepared to care for patients with SUD (Ford et al., 2008). In the current study, only one nurse described feeling unprepared to care for patients with SUD; however, these nurses demonstrated a lack of addiction knowledge. Even though patients were symptomatic of heart failure retaining fluid and struggling to ambulate, regardless they were perceived by nurses as culpable, and thus viewed at times as not "real patients." Nurses did not regard addiction as an authentic disease, regardless of the subsequent illness, which aligned with the literature (Brener et al., 2010; Gilchrist et al., 2011).

Education is a strategy to stem the opioid epidemic decreasing stigmatization and encouraging individuals suffering from IV drug use to come in for treatment without fear of stigma or ill-treatment. In nursing school, clinical placements focused on working with patients with SUD may be an effective strategy to circumvent negative views and the mindset that patients "aren't really sick anyway," stemming from perceived culpability of disease (Lovi & Barr, 2009, p. 170). According to Lovi and Barr (2009), nurses lacked educational preparation for SUD in general. By providing a specific clinical experience directed at highlighting the role

of the nurse specialized in caring for patients with SUD, students will have a greater understanding of the role on a specialty unit and how this may translate to caring for patients with SUD working on a general ward.

The findings of this study emphasize the need for addiction education in preservice undergraduate education, as well as professional workforce development. Education may reduce stigma as the American Academy of Nursing (AAN) recommended a collaboration with the National Council of State Boards for Nursing (NCSBN) and state boards to evaluate evidence of practice competencies on undergraduate and advanced practice levels regarding opioid "screening, treatment, prescribing of buprenorphine, and referral" (Naegle et al., 2017, p. 478). The major benefit of standardizing the addiction education that students and practicing nurses receive through curricular revisions or work-based training is that patient care and outcomes should improve. Education could improve nurses' attitudes, knowledge, and skills in caring for this vulnerable population (Smothers et al., 2018). Moreover, standardizing education may foster nurses' regard and empathy for patients with SUD. In essence, nurses are the gateway to treatment, and it is the subpar addiction education that is suspected to be the causative factor in the problems of access to treatment (Smothers et al., 2018).

In tandem to addiction science education, educators should highlight workplace violence education, as nurses in this study noted patients diagnosed with IE from IV drug use as prone to violence, aligning with the literature (Ford, 2011). Health care violence is a pervasive, prevalent, and persistent problem in health care with events underreported, largely tolerated as the norm, or conversely ignored (Phillips, 2016). Workplace violence is any act or threat including physical assault, provocation, intimidation or other behavior that is coercive (Thompson, 2015). In

addition to IE being an epidemic stemming from the opioid epidemic, physical violence is now a global concern, becoming an endemic (Gillespie et al., 2013).

Health care workers are victims of over 11,000 assaults annually at a cost of $5.6 billion per year with a $64.8 billion-dollar loss in productivity (Thompson, 2015). Patients with SUD and mental health issues are deemed most likely to perpetrate violence. However, nurses must remember that all patients have the capacity to commit violence and thus nurses must embrace a universal violence precaution mindset to prevent injury (Gillespie et al., 2013). Education is a preventative strategy to protect the current and future workforce of nurses. Educating nurses on de-escalation techniques such as using a 3-Step approach is imperative for nurse safety, as the old mindset of calming the patient is out and the progressive mindset helping the patient to calm themselves is best practice (Richmond, 2012). Basic human connection through communication is essential for improved patient outcomes and nurse safety (McCreaddie et al., 2016)

Health Policy

One health policy implication of this study is the need for standardized education in nursing regarding addiction science, as previously addressed, in the form of standardizing nursing curricula, placing an emphasis on addiction on the National Council Licensure Examination that is created by the National Councils of State Boards of Nursing (NCSBN), and emphasizing workforce development of practicing nurses, mandating continuing addiction education to maintain licensure. Another policy recommendation is for nursing authorities to continue pushing for standardized nurse to patient ratios, as nurses in this study were frustrated with staffing ratios as nurses cared for as many as “seven” patients. Backing bills such as S. 1063 – Nurse Staffing Standards for Hospital Patient Safety and Quality Care Act of 2017 sponsored by Senator Brown Sherrod (D-OH) and The Nurse Patient Staffing Standards for Hospital

Patient Safety and Quality Care Act of 2017(H.R. 2302) introduced by Representative Janice Schakowsky are imperative. Although according to Bill Track *50* this bill failed to pass; regardless, nurses must remain relentless in pursuing safe care standards for our patients and ourselves. To date, California remains the only state to provide safe patient staffing with set nurse to patient ratio standards.

Nurses in the current study were assaulted, mainly verbally; these assaults may affect the nurse's tolerance for "aggressive" and "belligerent" patients (Whittington, 2002). Therefore, it is imperative for authorities in nursing to continue to support and push for H. R. 1309 – Workplace Violence Prevention for Health Care and Social Service Workers Act sponsored by Representative Joe Courtney and S.851 – Workplace Violence Prevention for Health Care and Social Service Workers Act which was sponsored by Senator Tammy Baldwin. These bills push for safety of the health care worker, forcing the Department of Labor to address the violence that is occurring within the health care arena (Congress.Gov, n.d.). In addition, teaching communication techniques that include de-escalation approaches should be mandated in practice to safeguard nurses. A threefold policy initiative to improve nurse education, nurse to patient ratios, and championing violence prevention strategies may improve nurse safety, facilitate longevity in practice, and ultimately improve patient outcomes. These strategies could circumvent a situation such as one reported from Monks et al. (2013) study; negative attitudes towards patients with SUD were reported as intense with one nurse participant stating that most nurses would say they "think they're [patients with SUD] a waste of space," and a patient participant stated that a nurse asked him, "why should we waste a bed on you, you type of people?…so that was it, I went nuclear and became verbally and physically violent" (p. 940), and therein lies the consequences of nurse negative attitudes.

Recommendations for Future Research

There were no studies found exploring the lived experience of nurses caring for patients diagnosed with IE from IV drug use in Appalachia or elsewhere and so further studies are warranted in other sub regions of Appalachia and in areas outside of Appalachia, as well as focused in additional settings, such as the intensive care unit, emergency department, and public health, as examples. Another suggested area for future research is to study the lived experience of physicians and surgeons, as well as other ancillary staff, caring for patients diagnosed with IE from IV drug use to fully ascribe a multi refracted view of this phenomenon. In addition, it will be useful to examine this phenomenon through the lens of the patient and the others that surround them. There were no studies found exploring the patients lived experience of an IE diagnosis from IV drug use in Appalachia or elsewhere.

Another recommendation is to study the lived experience of the family caring for the patients diagnosed with IE from IE drug use, as they are the hidden patients. It is imperative to explore this phenomenon through their eyes to better understand their experiences in a caregiving role. Another recommendation for future research is to study this phenomenon in specific care areas, such as intensive care units, surgery, mental health nursing, medical surgical units, as examples. Future research is needed specifically focused on the lived experience of nurses caring for patients diagnosed with IE from IV drug who are deemed terminal, an end of life care study. Another area for future research is to study food insecurity in individuals with SUD and their families and visitors, as the accounts of nurses in this study illuminated the needs of this population. A final recommendation for future research is to illuminate the perceived dangers nurses face while delivering care and the strategies they employ to circumvent and

mitigate them, such as de-escalation techniques and the strategies they use to “escape” the situation.

Strengths and Limitations

A noted strength of this study was using an existential phenomenological approach to ascribe meaning to an unexplored phenomenon, as there were no qualitative studies exploring the lived experience of nurses caring for patients diagnosed with IE from IV drug use in Appalachia, or beyond. In addition, there were no quantitative studies found exploring this particular phenomenon in nursing. Using Thomas and Pollio’s (2002) research method based upon the philosopher Merleau-Ponty, the figural aspects of the phenomenon were explored contextually against the existential grounds of the nurse world in Appalachia, the time of the acute opioid crisis, the significant others surrounding the patient, and the exhaustion of the nurses’ bodies and emotions as they enacted their responsibility to care. The UTK Method was a strength as it provided a guide to ensure and protect study rigor.

The use of the Transdisciplinary Research Group (TPRG) group at the University of Tennessee in Knoxville to appraise and offer constructive critique of the researcher’s interview performance and evaluation of the richness of the data obtained was essential to describing this unexplored phenomenon. The phenomenological interviews were participant driven, lacking structure, which left the conversation open for deep rich exploration. The TPRG was essential to data analysis and thematization as the group helped the researcher to highlight nuances of verbatim transcripts and illuminate meaning units as the text was read aloud. In addition, the TPRG served as a sounding board and bracketing mirror, as members held each other accountable if the view became skewed, keeping each other grounded.

The noted limitations were that the study was conducted and confined to a geographical region, the Central and South-Central subregions of Appalachia. The health care settings were largely homogeneous, as eight nurses worked within a hospital and only one in the public health arena. All nurses were registered nurses, leaving the views of practical nurses unexplored. The sample was largely homogeneous and possibly skewed with ethnocentric and gynocentric views, as all participants were Caucasians with eight females and one male recruited. However, findings of the study may be transferable if readers judge the themes and patterns in these data plausible, illuminating, and relevant to their own areas of practice (Thomas & Pollio, 2002).

Summary

Infective endocarditis contracted from IV drug use is a serious infection with a high mortality rate. Nurses in Appalachia are experiencing an increase in patients admitted for long term antibiotic therapy to treat IE from IV drug use. Surgery is often required to repair the valvular damage to the heart caused from infective endocarditis, but in the patient who uses IV drugs, surgery is only occasionally considered. Ethical conversations regarding the appropriate treatment trajectory of these patients are occurring in the larger medical community and greater society, but the voice of the nurse pertaining to this issue was silent. This study is the first of its kind to explore the lived experience of nurses caring for patients diagnosed with IE from IV drug use in Appalachia or elsewhere, as there were no studies found exploring this phenomenon, qualitative or quantitative. This qualitative phenomenological study examined an unexplored phenomenon against the backdrop of Merleau-Ponty's (1945/2012) existential grounds of world, time, others, and body to reveal a central overarching polar theme of helplessness/hope from which four themes were derived: 1) guarding/escaping; 2) responsibility and revulsion; 3) apathy/empathy; and 4) grief and sorrow/cold and unemotional. This study afforded insight into

the meaning nurses ascribe to caring for this population of patients. The findings of this study were used to make recommendations for nursing practice, nursing education, and health policy to enhance nursing care delivery and improve patient outcomes.

List of References

Abram, M. D. (2018). The role of the registered nurse working in substance use disorder treatment: A hermeneutic study. *Issues in Mental Health Nursing,* 39(6), 490-498.

Ahern, J., Stuber, & Galea. (2007). Stigma, discrimination and the health of illicit drug users. *Drug and Alcohol Dependence, 88*(2-3), 188-196.

Alpert, J. S. (2016). Endocarditis is alive and well, unfortunately. *The American Journal of Medicine*, *129*(5), 453-454.

American Heart Association. (2017). Heart valves and infective endocarditis. Http://www.heart.org/HEARTORG/Conditions/More/HeartValveProblemsandDisease/Heart-Valves-and-Infective-Endocarditis_UCM_450448_Article.jsp#.W1y4ti3MyCR

American Heart Association (2018). Heart valves and infective endocarditis. Http://www.heart.org/en/health-topics/heart-valve-problems-and-disease/heart-valve-problems-and-causes/heart-valves-and-infective-endocarditis

American Society of Addiction Medicine. (2011). ASAM releases new definition of addiction. *ASAM News, 26*(3), 1-15.

Appalachia Regional Commission. (n.d.). Creating a culture of health in Appalachia. Https://www.arc.gov/assets/research_reports/Health_Disparities_in_Appalachia_Health_Care_Systems_Domain.pdf

Appalachian Regional Commission. (n.d.) Subregions in Appalachia. Https://www.arc.gov/research/MapsofAppalachia.asp?MAP_ID=31

Appalachian Regional Commission. (2017). Creating a culture of health in Appalachia. Https://www.arc.gov/assets/research_reports/Health_Disparities_in_Appalachia_August_2017.pdf

Appalachian Regional Commission. (2019). Issue Brief. Health disparities related to opioid misuse in Appalachia. Practical strategies and recommendations for communities. *Creating a Culture of Health in Appalachia Disparities and Bright Spots,* 1-22. Https://www.arc.gov/assets/research_reports/HealthDisparitiesRelatedtoOpioidMisuseinAppalachiaApr2019.pdf

Armstrong, M. L., DeBoer, S., & Cetta, F. (2008). Infective endocarditis after body art: A review of the literature and concerns. *Journal of Adolescent Health, 43*(3), 217-225.

Aultman, J. M., Peshel, E., Harfouche, C., & Firstenberg, M. S. (2018). The ethics in repeat heart valve replacement surgery. *In Advanced Concepts in Endocarditis. IntechOpen.*

Baddour, L. M., Wilson, W. R., Bayer, A. S., Fowler, V. G., Tleyjeh, I. M., Rybak, M. J., Barsic, B., Lockhart, P. B., Gewitz, M. H., Levison, M. E., Bolger, A. F., Steckelberg, J. M, Baltimore, R. S., Fink, A. M., O'Gara, P., & Taubert, K. A. (2015). Infective endocarditis in adults: Diagnosis, antimicrobial therapy, and management of complications: A scientific statement for healthcare professionals from the American Heart Association. *Circulation, 132*(15), 1435-1486.

Bartlett, R., Brown, L., Shattell, M., Wright, T., & Lewallen, L. (2013). Harm reduction: Compassionate care of persons with addictions. *Medsurg Nurs, 22*(6), 349.

Bates, M. C., Annie, F., Jha, A., & Kerns, F. (2019). Increasing incidence of IV-drug use associated endocarditis in Southern West Virginia and potential economic impact. *Clinical Cardiology, 42*(4), 432–437.

Bates, L., & Stickley, T. (2013). Confronting Goffman: How can mental health nurses effectively challenge stigma? A critical review of the literature. *Journal of Psychiatric and Mental Health Nursing, 20*(7), 569-575.

Bauer, R., N., Southard, E. P., & Kummerow, A. M. (2017). Heroin abuse: Nurses confronting a growing trend. *MedSurg Nurs, 26*(4), 231

Beeber, L., Anderson, C. A., & Sills, G. M. (1990). Peplau's theory in practice. *Nursing Science Quarterly*, *3*(1), 6-8.

Bill Track *50*. (n.d.) US S1063. Nurse Staffing Standards for Hospital Patient Safety and Quality Care Act of 2017. Retrieved from https://www.billtrack50.com/BillDetail/876109

Bor, D. H., Woolhandler, S., Nardin, R., Brusch, J., & Himmelstein, D. U. (2013). Infective endocarditis in the US, 1998–2009: A nationwide study. PloS one, 8(3), e60033.

Brener, L., & Von Hippel, W. (2008). Measuring attitudes toward injecting drug users and people with hepatitis C. *Substance Use & Misuse*, *43*(3-4), 295-302.

Brener, L., von Hippel, W., & Kippax, S. (2007). Prejudice among health care workers toward injecting drug users with hepatitis C: Does greater contact lead to less prejudice? *International Journal of Drug Policy*, *18*(5), 381-387.

Brener, L., von Hippel, W. V., Kippax, S., & Preacher, K. J. (2010). The role of physician and nurse attitudes in the health care of injecting drug users. *Substance Use & Misuse*, *45*(7-8), 1007-1018.

Brener, L., Von Hippel, W., Von Hippel, C., Resnick, I., & Treloar, C. (2010). Perceptions of discriminatory treatment by staff as predictors of drug treatment completion: Utility of a mixed methods approach. *Drug and Alcohol Review*, *29*(5), 491-497.

Brunelli, T. (2005). A concept analysis: The grieving process for nurses. In *Nursing Forum*. 40(4), 123-128. Blackwell Publishing Inc.

Bryant, J., Brener, L., Hull, P., & Treloar, C. (2010). Needle sharing in regular sexual relationships: An examination of serodiscordance, drug using practices, and the gendered character of injecting. *Drug and Alcohol Dependence*, *107*(2-3), 182-187.

Buckingham, W., Burnham, D., Hill, C., King, P. J., Marenbon, J., & Weeks, M. *The philosophy book big ideas simply explained.* DK Publishing.

Cahill, T. J., Baddour, L. M., Habib, G., Hoen, B., Salaun, E., Pettersson, G. B., Schafers, H. J., & Prendergast, B. D. (2017). Challenges in infective endocarditis. *Journal of the American College of Cardiology*, *69*(3), 325-344.

Cama, E. J., Wilson, H., Mackenzie, A., & Brener, L. (2015). Hepatitis C stigma and empowerment through positive speaking in Sydney, Australia. *Journal of Community & Applied Social Psychology, 25*(5), 418-431.

Cama, E., Brener, L., Slavin, S., & de Wit, J. (2015). The impact of HIV treatment-related stigma on uptake of antiretroviral therapy. *AIDS Care, 27*(6), 739-742.

Centers for Medicare & Medicaid Services. (2017). Swing bed providers. Https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/SNFPPS/SwingBed

Centers for Medicare & Medicaid Services. (2019). Swing bed services. *Medicare Learning Network.* Https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/downloads/SwingBedFactsheet.pdf

Centers for Disease Control and Prevention. (2018). Understanding the Epidemic. Https://www.cdc.gov/drugoverdose/epidemic/index.html

Chambers, J., Sandoe, J., Ray, S., Prendergast, B., Taggart, D., Westaby, S., Arden, C., Grothier, L, Wilson, J, Campbell, B., Gohlke-Bärwolf, C., Mestres, C. S., Rosenhek, R., Pibarot, P., & Otto, C. (2014). The infective endocarditis team: Recommendations from an international working group. *Editorial British Medical Journal, 100*(7), p. 524.

Cimiotti, J. P., Aiken, L. H., Sloane, D. M., & Wu, E. S. (2012). Nurse staffing, burnout, and health care-associated infection. *American Journal of Infection Control*, *40*(6), 486–490. Https://doi.org/10.1016/j.ajic.2012.02.029

Cleveland Clinic. One heart surgeon's story of helping a drug addict find hope. *Consult QD.* Https://consultqd.clevelandclinic.org/one-heart-surgeons-story-of-helping-a-drug-addict-find-hope/

Cohen, M. M. (2006). Jim Crow's drug war: Race, Coca Cola, and the southern origins of drug prohibition. *Southern Cultures, 12*(3), 55-79. *Geriatrics Society, 65*(1), 221.

Congress. Gov. (2017). H.R.2392 - Nurse Staffing Standards for Hospital Patient Safety and Quality Care Act of 2017. Https://www.congress.gov/bill/115th-congress/house-bill/2392?r=9

Congress. Gov. (2017). S.1063 – Nurse Staffing Standards for Hospital Patient Safety and Quality Care Act of 2017. Https://www.congress.gov/bill/115th-congress/senate-bill/1063

Congress. Gov. (2019). H. R. 1309 – Workplace violence prevention for health care and social service workers act. Https://www.congress.gov/bill/116th-congress/house-bill/1309

Congress. Gov. (2019). H. R. 1309 – Workplace violence prevention for health care and social service workers act. Https://www.congress.gov/bill/116th-congress/senate-bill/851

Corley, M. C., & Goren, S. (1998). The dark side of nursing: Impact of stigmatizing responses on patients. *Research and Theory for Nursing Practice*, *12*(2), 99.

Coyne, C. A., Demian-Popescu, C., & Friend, D. (2006). *Preventing Chronic Disease, 3*(4): A124.

Creswell, J. W. (2014). *Research design* (4th ed.). SAGE.

Deas, D. S., & Keeling, B. (2018). Stop draggin' my heart around: Recidivism, intravenous drug use, and endocarditis. *In Seminars in Thoracic and Cardiovascular Surgery, 31*(1), 46-47. Elsevier.

Denham, S. A. (2016). Does a culture of Appalachia truly exist? *Journal of Transcultural Nursing, 27*(2), 94-102.

Deren, S., Goldstein, M.F., Williams, M., Stark, M., Estrada, A., Friedman, S.R., Young, R.M., Needle, R., Tortu, S., & Saunders, L. (1996). Sexual orientation, HIV risk behavior, and serostatus in a multi-site sample of drug-injecting and crack-using women. *Women's Health: Research, Behavior, and Policy, 2*(1/2).

Deren, S., Kang, S-Y., Mino, M., & Guarino, H. (2010). Migrant drug users: Predictors of HIV-related sexual and injection risk behaviors. *Journal of Immigrant and Minority Health,* 12:179-186.

Deren S, Kang S-Y, Mino M, Guarino H. (2012). Conducting peer outreach to migrants: Outcomes for drug treatment patients. *Journal of Immigrant and Minority Health, 14*(2): 251-258.

Deren, S., Oliver-Velez, D., Finlinson, H.A., Robles, R.R., Andía, J.F., Colón, H.M., Kang, S-Y., Shedlin, M. (2003). Integrating qualitative and quantitative methods: Comparing HIV-related risk behaviors among Puerto Rican drug users in Puerto Rico and New York. *Substance Use and Misuse, 38*(1): 1-24

Deren, S., Shedlin, M., Davis, W.R., Balcorta, S., Beardsley, M., & Des Jarlais, DC. (1997). Dominican, Mexican, and Puerto Rican prostitutes: Drug use and sexual behaviors. *Hispanic Journal of Behavioral Sciences, 19*(2): 202-213.

Deren, S., Shedlin, M., Kang, S-Y., & Cortes, D. (2011). HIV risk and prevention among Hispanic immigrants in NY: The salience of diversity. In Deren, S. & Hagan, H (eds.). The New York HIV-drug epidemic: Lessons learned and unresolved issues. *Substance Use and Misuse, 46* (2-3): 254-263.

Deren, S., Shedlin, M., Beardsley, M., Davis, W.R., & Sanchez, J. (1993, October). HIV-related sexual risk behaviors among Latina women. Presented at the Annual Meeting of the American Public Health Association, San Francisco, CA.

Deren, S., Davis, W.R., Tortu, S., & Ahluwalia, I. (1993). Characteristics of female sexual partners. In Brown, B., (Ed.). *Handbook on risk of AIDS, injection drug users and sexual partners*. Greenwood Press.

Deren, S., & Tross, S. (2015). Broadening substance use(r) research and intervention efforts to address context. *Substance use & Misuse*, *50*(8-9), 1171-3.

Deren S, Kang S-Y, Mino M, Guarino H. (2012). Conducting peer outreach to migrants: Outcomes for drug treatment patients. *Journal of Immigrant and Minority Health, 14*(2): 251-258. *DOI: 10.1007/s10903-011-9467-4. PMCID: PMC3178661.*

Doane, A. (2014). The dilemma of liver transplant allocation for alcoholic patients. *Gastroenterology Nursing*, *37*(5), 318-325. doi: 10.1097/SGA.000000000000064

Donix, M. (2017). Our hidden patients. *Journal of the American Geriatrics Society*, *65*(1), 221-221.

Diddle, G., & Denham, S. A. (2010). Spirituality and its relationships with the health and illness of Appalachia People. *Journal of Transcultural Nursing, 21*(2), 175-182.

Drug Enforcement Administration. (2017) National Drug Threat Assessment. Https://www.dea.gov/sites/default/files/2018-07/DIR-040-17_2017-NDTA.pdf

Dunne, B., Marr, T., Kim, D., Andrews, D., Edwards, M, Merry, C, & larbalestier, R. (2014). Infective endocarditis. *Heart, Lung and Circulation, 23,* 628 – 635.

Emlet, C. A. (1996). Assessing the informal caregiver: Team member or hidden patient? *Home Care Provider, 1*(5), 255-262.

Elpern, Covert, and Kleinpell (2005). Moral distress of staff nurses in a medical intensive care unit. *American Journal of Critical Care, 14(*6), 523-530.

Englander, H., Weimer, M., Solotaroff, R., Nicolaidis, C., Chan, B., Velez, C., Noice, A., Hartnett, T., Blackburn, E., Barnes, P., & Korthuis, T. (2017). Planning and designing the improving addiction care team (IMPACT) for hospitalized adults with substance use disorder. *Journal of Hospital Medicine*, *12*(5), 339.

European Association for the Study of The Liver. (2012). EASL clinical practical guidelines: Management of alcoholic liver disease. *Journal of Hepatology*, *57*(2), 399-420.

Feeding America. (2014). *Hunger in America 2014 National Report.* Http://help.feedingamerica.org/HungerInAmerica/hunger-in-america-2014-full-report.pdf

Feeding America. (2017). *Hunger and poverty facts.* Http://www.feedingamerica.org/hunger-in-america/hunger-and-poverty-facts.html

Feeding America. (2020). Hunger in Tennessee. Https://www.feedingamerica.org/hunger-in-america/tennessee

Feeding America. (2015). *Map the meal gap 2017.* Http://www.feedingamerica.org/research/map-the-meal-gap/2015/2015-mapthemealgap-execsummary.pdf

Feeding America. (2019). Map the meal gap. Food insecurity in the United States. Https://map.feedingamerica.org/

Feeding America. (n.d). Resources. Food insecurity screening toolkit. Https://hungerandhealth.feedingamerica.org/resource/food-insecurity-screening-toolkit/

Fengler A. P., & Goodrich N. (1979). Wives of elderly disabled men: The hidden patients. *Gerontologist, 19*, 175–183.

Ferraris, V. A., & Sekela, M. E. (2016). Missing the forest for the trees: The world around us and surgical treatment of endocarditis. *The Journal of Thoracic and Cardiovascular Surgery, 152*(3), 677 – 680.

Fleishchauer, A. T., Ruhl, L., Rhea, S., & Barnes, E. (2017). Hospitalizations for endocarditis and associated health care costs among persons with diagnosed drug dependence- North Carolina, 2010-2015. *MMWR Morbidity Mortality Weekly Report. 66*, 569-573.

Ford, R., Bammer, C., & Becker, N. (2008). The determinants of nurses' therapeutic attitude to patients who use illicit drugs and implications for workforce development *Journal of Clinical Nursing, 17*, 2452-2462.

Ford, R. (2011). Interpersonal challenges as a constraint on care: The experience of nurses' care of patients who use illicit drugs. *Contemporary Nurse*, *37*(2), 241-252.

Forchuk, C. (1991). Peplau's theory: Concepts and their relations. *Nursing Science Quarterly, 4*(2), 54-60.

Froggatt, K. (1998). The place of metaphor and language in exploring nurses' emotional work. *Journal of Advanced Nursing*, *28*(2), 332-338.

Gallager, S. (2010). Merleau-Ponty's phenomenology of perception. *Research Gate,* 29, 183 – 185.

Gannon, K. (1994). Alzheimer's takes toll on the 'hidden patient.' (the caregiver)." *Drug Topics* 138(8), 1-2.

Gerace, L. M., Hughes, T. L., & Spunt, J. (1995). Improving nurses' responses toward substance-misusing patients: a clinical evaluation project. *Archives of Psychiatric Nursing*, *9*(5), 286-294.

Gilchrist, G., Moskalewicz, J., Slezakova, S., Okruhlica, L., Torrens, M., Vajd, R., & Baldacchino, A. (2011). Staff regard towards working with substance users: A European multi-centre study. *Addiction*, *106*(6), 1114-1125.

Gillespie, G. L., Gates, D., & Berry, P. (2013). +. *The Online Journal of Issues in Nursing*, *18*(1).

Goffman, E. (1963). *Sigma notes on spoiled identity.* Prentice-Hall, INC.

Goodnough, A. (2018, April 29). Injecting drugs can ruin a heart. How many second chances should a user get? *The New York Times.* Https://www.nytimes.com/2018/04/29/health/drugs-opioids-addiction-heart-endocarditis.html

Gray, M. T. (2014). Agency and addiction in a harm reduction paradigm: French nurses' perspectives. *Archives of Psychiatric Nursing, 28,* 35 – 42.

Guba, E. G. (1981). Criteria for assessing the trustworthiness of naturalistic inquiries. *ECTJ, 29*(2), 75. Https://doi.org/10.1007/BF02766777

Guarino H, Marsch LA, Deren S, Straussner SL, & Teper A (2015) Opioid use trajectories, injection drug use and HCV risk among young adult immigrants from the former Soviet Union living in New York City. *Drug and Alcohol Dependence,* 156, e8

Hopkinson, J. B., Hallett, C. E., & Luker, K. A. (2003). Caring for dying people in hospital. *Journal of Advanced Nursing*, *44*(5), 525-533.

Horner, G., Daddona, J., Burke, D. J., Cullinane, J., Skeer, M., & Wurcel, A. G. (2019). "You're kind of at war with yourself as a nurse": Perspectives of inpatient nurses on treating people who present with a comorbid opioid use disorder. *PloS one*, *14*(10).

Hoerger, M., & Cullen, B. D. (2017). Early integrated palliative care and reduced emotional distress in cancer caregivers: Reaching the "hidden patients". *The Oncologist*, *22*(12), 1419–1420. https://doi.org/10.1634/theoncologist.2017-0432

Howard, M. O., & Chung, S. S. (2000a). Nurses' attitudes toward substance misusers. I. Surveys. *Substance Use & Misuse*, *35*(3), 347-365.

Howard, M. O., & Chung, S. S. (2000b). Nurses' attitudes toward substance misusers. II. Experiments and studies comparing nurses to other groups. *Substance use & misuse*, *35*(4), 503-532.

Howard, V. & Holmshaw, J. (2010). Inpatient staff perceptions in providing individuals with co-occurring mental health problems and illicit substance use. *Journal of Psychiatric and* Mental Health Nursing, 17(10), 862-872.

Howard, M. O., Walker, R. D., Walker, P. S., & Suchinsky, R. T. (1997). Alcohol and drug education in schools of nursing. *Journal of Alcohol and Drug Education*, *42*(3), 54 - 80.

Hull, S. C., & Jadbabaie, F. (2014). When is enough enough? The dilemma of valve replacement in a recidivist intravenous drug user. *The Annals of Thoracic Surgery*, *97*(5), 1486-1487.

Jesse, D. E., & Reed, P. G. (2004). Effects of spirituality and psychosocial well-being on health risk behaviors in Appalachian pregnant women. *Journal of Obstetric Gynecologic, & Neonatal Nursing, 33*(6), 739-747.

Ji, Y., Kujtan, L., & Kershner, D. (2012). Acute endocarditis in intravenous drug users: A case report and literature review. *Journal of Community Hospital Internal Medicine Perspectives*, *2*(1), 11513.

Johansson, L, & Wiklund-Gustin, L. (2016). The multifaceted vigilance – nurses' experience of caring encounters with patients suffering from substance use disorder. *Scandinavian Journal of Caring Science, 30,* 303 – 311.

Kälvemark, S., Höglund, A. T., Hansson, M. G., Westerholm, P., & Arnetz, B. (2004). Living with conflicts-ethical dilemmas and moral distress in health care system. *Social Science & Medicine, 58,* 1075 – 1084.

Kandall, S. R. (2010) Women and drug addiction: A historical perspective. *Journal of Addictive Diseases, 29*, 117 – 126.

Kaushik, K. S., Kapila, K., & Praharaj, A. K. (2011). Shooting up: the interface of microbial infections and drug abuse. *Journal of Medical Microbiology*, *60*(4), 408-422.

Kaura, A., Dworakowska, D., & Dworakowski, R. (2017). Infective endocarditis-Cinderella in cardiology. *Kardiol Pol*, *75*(10), 965-74.

Keele, R. (2011). *Nursing research and evidence-based practice*. Jones & Bartlett Learning.

Keeshin, S. W., & Feinberg, J. (2016). Endocarditis as a marker for new epidemics of injection drug use. *The American Journal of the Medical Sciences*, *352*(6), 609-614.

Kiefer, T., Park, L., Tribouilloy, C., Cortes, C., Casillo, R., Chu, V., Delahaye, F., Durante-Mangoni, E., Edathodu, J., Falces, C., Logar, M., Miró, J. M., Naber, C., Tripodi, M. F., Murdoch, R., Moreillon, P., Utili, R., & Wang, A. (2011). Association between valvular surgery and mortality among patients with infective endocarditis complicated by heart failure. *Journal of the American Medical Association, 306*(20), 2239–2247. Https://doi.org/10.1001/jama.2011.1701

Kileci, J. A., Rothman, A., & Filopei, J. (2018). Getting sick from the lick: An extremely rare case of endocarditis, septic shock and multiple cavitary nodules. In *C53. Critical Care Case Reports: You Give Me (More) Fever-Infection and Sepsis, A5289. American Thoracic Society.*

Kirkpatrick, J. N. (2010). Infective endocarditis in the intravenous drug user. *AMA Journal of Ethics*, *12*(10), 778-781.

Kisorio, L. C., & Langley, G. C. (2016). Intensive care nurses' experiences of end-of-life care. *Intensive and Critical Care Nursing, 33*, 30 -38.

Koob, F. F., & Simon, E. J. (2009). The neurobiology of addiction: Where we have been and where we are going. J*ournal of Drug Issues, 39*(1), 115-1132.

Koob, G. F., & Volkow, N. D. (2009). Neurocircuitry of Addiction. *Neuropsychopharmaacology, 35*(1), 217- 238.

Koob, G. F. (2015). The dark side of emotion: The addiction perspective. *European Journal of Pharmacology, 15,* 73-87.

Koob, G. F., & Le Moal, M. (1997). Drug abuse: Hedonic homeostatic dysregulation. *Science, 278* (5335), 52 -58.

Koob, G. F. & Le Moal, M. (2001). Drug addiction, dysregulation of reward, and allostasis. *Neuropsychopharmacology, 24(*2), 97.

Koob, F. F., & Simon, E. J. (2009). The neurobiology of addiction: Where we have been and where we are going. J*ournal of Drug Issues, 39*(1), 115-1132.

Koob, G. F., & Volkow, N. D. (2010). Neurocircuitry of addition. *Neuropsychopharmacology, 35(*1), 217-238.

Koslowsky, M. and Deren, S. (1975). A comparison of three procedures for classifying addicts. *Journal of Consulting and Clinical Psychology, 43(3)*, 433.

distress and its correlates. *Journal of Health Psychology*, *22*(1), 51-67.

Kristjanson, L. J., & Aoun, S. (2004). Palliative care for families: Remembering the hidden patients. *The Canadian Journal of Psychiatry*, *49*(6), 359–365. Https://doi.org/10.1177/070674370404900604

Larney, S., Peacock, A., Mathers, B., Hickman, M., & Degenhardt, L. (2017). A systematic review of injecting-related injury and disease among people who inject drugs. *Drug and Alcohol Dependence, 171*, 39-49.

Lopez, K. A., & Willis, D. G. (2004). Descriptive versus interpretive phenomenology: Their contributions to nursing knowledge. *Qualitative Health Research*, *14*(5), 726-735.

Lovi, R., & Barr, J. (2009). Stigma reported by nurses related to those experiencing drug and alcohol dependency: A phenomenological Giorgi study. *Contemporary Nurse*, *33*(2), 166-178.

Marcellus, M. (2007). Looking back and thinking ahead about substance misuse: Fifty years of practice in the Canadian Nurse. J*ournal of Addictions Nursing, 18,* 123-129.

Mathers, B. M., Degenhardt, L., Phillips, B., Wiessing, L., Hickman, M., Strathdee, S. A., Wodak, A., Panda, S., Tyndall, M, Toufik. A., & Mattick, R. P. (2008). Epidemiology of injecting drug use and HIV among people who inject drugs: A systematic review. *Lancet, 372*, 1733-1745.

Mautner, T. (2005). *Dictionary of philosophy (2nd ed.).* Penguin Group.

McCall, J., Phillips, J. C., Estafan, A., & Caine, V. (2019). Exploring the experiences of staff working at an opiate assisted treatment clinic: An interpretive descriptive study. *Applied Nursing Research*, *45*, 45-51.

McCreaddie, M., Lyons, I., Watt, D., Ewing, E., Croft, J., Smith, M., & Tocher, J. (2010). Routines and rituals: a grounded theory of the pain management of drug users in acute care settings. *Journal of clinical nursing*, *19*(19-20), 2730-2740

McLaughlin, D., McKenna, H., Leslie, J., Moore, K., & Robinson, J. (2006). Illicit drug users in Northern Ireland: Perceptions and experiences of health and social care professionals. *Journal of Psychiatric and Mental Health Nursing*, *13*(6), 682-686.

Melia, K. M. (2001). Ethical issues and the importance of consensus for the intensive care team. *Social Science & Medicine*, *53*(6), 707-719.

Meltzer, L. S., & Huckabay, L. M. (2004). Critical care nurses' perceptions of futile care and its effect on burnout, *American Journal of Critical Care*, 203-208.

Merleau-Ponty, M. (1945/2012). *The phenomenology of perception* (D. Landes, Trans.). New York, NY: Routledge. (Original work published in 1945).

Miró, J. M., & Mestres, C. A. (2002). Infective endocarditis in intravenous drug abusers and HIV-1 infected patients. *Infectious disease clinics of North America*, *16*(2), 273-95.

Mishra, Ruchika. "Does Blame Trump Benefit in Treatment Decisions? Nonadherence and Cardiac Surgery." *The American Journal of Bioethics* 18.1 (2018): 81–83. Web.

Monks, R., Topping, A., & Newell, R. (2013). The dissonant care management of illicit drug users in medical wards, the views of nurses and patients: A grounded theory study. *Journal of Advanced Nursing*, *69*(4), 935-946.

Morgan, B. D. (2006). Knowing how to play the game: Hospitalized substance abusers' strategies for obtaining pain relief. *Pain Management Nursing*, *7*(1), 31-41.

Morgan, B. D. (2014). Nursing attitudes toward patients with substance use disorder in pain. *Pain Management Nursing, 15*(1), 165-175.

Morley, G., Briggs, E., & Chumbley, G. (2015). Nurses' experiences of patients with substance-use disorder in pain: A phenomenological study. *Pain Management Nursing*, *16*(5),701-711.

Murdoch, D. R., Corey, G. R., Hoen, B., Miró, J. M., Fowler, V. G., Bayer, A. S., ... & Chambers, S. T. (2009). Clinical presentation, etiology, and outcome of infective endocarditis in the 21st century: The International Collaboration on Endocarditis–Prospective Cohort Study. *Archives of Internal Medicine*, *169*(5), 463-473.

Naegle, M. (1988a). Substance abuse among women: Prevalence, patterns, and treatment issues. *Issues in Mental Health Nursing, 9,* 127-137.

Naegle, M. (1988b). Theoretical perspectives on the etiology of substance abuse. *Holistic Nursing Practice, 2*(4), 1-13.

Naegle, M. (1991). Florence Nightingale: Addictions nursing pioneer. *Addictions Nursing Network, 3*(4), 124-125. *Health & Research World, 18(2*), 154-157.

Naegle, M. A. (1989). Targets for change in alcohol and drug education for nursing roles. *Alcohol Health & Research World, 13*(1), 52.

Naegle, M. A., (2002). Nursing education in the prevention and treatment of SUD, *Substance Abuse, 23(S1*), 247 – 261.

Naegle, M. A. (2005). Necessary leaps for addictions nursing education and practice. *Journal of Addictions Nursing,* 16, 161-162.

Naegle, M. A. (2015). Nursing care in alcohol and drug user treatment facilities. *Substance Use & Misuse, 50*, 1153-1158.

Naegle, M., Mitchell, A. M., Flinter, M., Dunphy, L., Vanhook, P., & Delaney, K. R. (2017). Opioid misuse epidemic: Addressing opioid prescribing and organization initiatives for holistic, safe and compassionate care. *Nursing Outlook*, *65*(4), 477-479.

Natan, M. B., Beyil, V., & Neta, O. (2009). Nurses' perception of the quality of care they provide to hospitalized drug addicts: Testing the theory of reasoned action. *International Journal of Nursing Practice*, *15*(6), 566-573.

National Institute of Health. U.S. National Library of Medicine. (2018). Opioid addiction. *Genetics Home Reference.* Https://ghr.nlm.nih.gov/condition/opioid-addiction

National Heart, Lung, and Blood Institute. (n.d.). Heart inflammation. Https://www.nhlbi.nih.gov/health-topics/heart-inflammation

National Institutes of Drug Abuse. Volkow, N. D. (2014). Harnessing the power of science to inform substance use and addiction policy and practice. Https://www.drugabuse.gov/about-nida/legislative-activities/testimony-to-congress/2014/harnessing-power-science-to-inform-substance-abuse-addiction-policy-practice

National Institute on Drug Abuse. (2015). Drugs of Abuse: Opioids. Http://www.drugabuse.gov/drugs-abuse/opioids.

National Institute on Drug Abuse. (n.d). Drugs of Abuse: Opioids. Http://www.drugabuse.gov/drugs-abuse/opioids.

National Institute on Drug Abuse. (n.d.) Glossary. Https://www.drugabuse.gov/publications/media-guide/glossary

National Institute on Drug Abuse, U.S. Department of Health and Human Services, & National Institutes of Health. (2018). The science of drug use and addiction: The basics. Https://d14rmgtrwzf5a.cloudfront.net/sites/default/files/media_guide.pdf

National Institute on Drug Abuse. (2019). Heroin. Https://www.drugabuse.gov/publications/drugfacts/heroin

Neville, K., & Roan, N. (2014). Challenges in nursing practice: Nurses' perceptions in caring for hospitalized medical-surgical patients with substance abuse/dependence. *Journal of Nursing Administration*, *44*(6), 339-346.

Nelson, P. K., Mathers, B. M., Cowie, B., Hagan, h., Des Jarlais, D., Horyniak, D., & Degenhardt, L. (2011). Global epidemiology of hepatitis B and hepatitis C in people who inject drugs. *The Lancet, 378*(9791), 571-583

Norman, R. (2001). Have you got an attitude problem? Caring for illicit drug-using patients. *Contemporary Nurse, 10*(1-2), 83-90.

Olsen, D. P. (1997). When the patient causes the problem: The effect of patient responsibility on the nurse-patient relationship. *Journal of Advanced Nursing*, *26*(3), 515-522.

Palamar, J. J., Kiang, M. V., & Halkitis, P. N. (2012). Predictors of stigmatization towards use of various illicit drugs among emerging adults. *Journal of Psychoactive Drugs, 44*(3), 243 – 251.

Osler, W. (1885). The Gulstonian lectures, on malignant endocarditis. *British Medical Journal*, *1*(1263), 522.

Pauly, B., McCall, J. J., Browne, A., Parker, J., & Mollison, A. (2015). Toward cultural safety: Nurse and patient perceptions of illicit substance use in a hospitalized setting. *Advances in Nursing Science, 38*(2), 121-135.

Peden, A. R., Stall, J., Rittman, M., & Gullett, D. L. (2015). Nurse-patient relationship theories: In M. C. Smith & M. E. Parker (Eds.), *Nursing Theories and Nursing Practice,* (pp. 67-86). F. A. Davis Publishing Company.

Peckover, S., & Chidlaw, R. (2007). Too frightened to care? Accounts by district nurses working with clients who misuse substances. *Health & Social Care in the Community, 15*(3), 238-245.

Peplau, H. E. (1952). *Interpersonal relations in nursing.* G. P. Putnam's Sons.

Peplau, H. (1992). Interpersonal Relations: A Theoretical Framework for Application in Nursing Practice. *Nursing Science Quarterly, 5*(1), 13-18.

Phelan, Lucas, Ridgeway, & Taylor. (2014). Stigma, status, and population health. *Social Science & Medicine, 103*, 15-23.

Phillips, J. P. (2016). Workplace violence against health care workers in the United States. *New England Journal of Medicine*, *374*(17), 1661-1669.

Prendergast, B. D. (2006). The changing face of infective endocarditis. *Heart*, *92*(7), 879-885.

Rabkin, D. G., Mokadam, N. A., Miller, D. W., Goetz, R. R., Verrier, E. D., & Aldea, G. S. (2012). Long-term outcome for the surgical treatment of infective endocarditis with a focus on intravenous drug users. *The Annals of Thoracic Surgery*, *93*(1), 51-57.

Rainer, J., Schneider, J. K., & Lorenz, R. A. (2018). Ethical dilemmas in nursing: An integrative review. *Journal of Clinical Nursing, 27(19-20), 3446-3461.*

Rao, H., Mahadevappa, H., Pillay, P., Sessay, M., Abraham, A., & Luty, J. (2009). A study of stigmatized attitudes towards people with mental health problems among health professionals. *Journal of Psychiatric and Mental Health Nursing*, *16*(3), 279-284.

Richardson, H., & Kovner, A. R. (Eds.). (1987). Swing-beds: Current experience and future directions. *Health Affairs*, *6*(3), 61-74.

Richmond, J., Berlin, J., Fishkind, A., Holloman, G., Zeller, S., Wilson, M., Rifai, M. A., & Ng, (2012) Verbal De-escalation of the agitated patient: Consensus statement of the American Association for Emergency Psychiatry project BETA de-escalation workgroup. *The Western Journal of Emergency Medicine, 13*(1), 17-25.

Ronan, M. V., & Herzig, S. J. (2016). Hospitalizations related to opioid abuse/dependence and associated serious infections increased sharply, 2002- 2012. *Health Affairs, 35*(5).

Rosenthal, E. S., Karchmer, A. W., Theisen-Toupal, J., Castillo, R. A., & Rowley, C. F. (2016). Suboptimal addiction interventions for patients hospitalized with injection drug use-associated infective endocarditis. *The American journal of medicine*, *129*(5), 481-485.

Rudd, R. A., Paulozzi, L. J., Bauer, M. J., Burleson, R. W., Carlson, R. E., Dao, D., Davis, J. W., Dudek, J., Eichler, B. A. , Fernandes, J. C. , Fondario, A., Gabella, B., Hume, B., Huntamer, T., Kariisa, M., Largo, T. W., Miles, J., Newmyer, A., Nitcheva, D, Perez, B. E, Proescholdbell, S. K., & Zehner, A. M. (2014). Increases in Heroin Overdose Deaths — 28 States, 2010 to 2012. *MMWR. Morbidity and Mortality Weekly Report*, *63*(39), 849–854.

Rudd, R. A., Seth, P., David, F., & Scholl., L. (2016). Increases in drug and opioid-involved overdose deaths—United States, 2010–2015. *MMWR. Morbidity and Mortality Weekly Report*, *65*.

Shattell, M., McAllister, S., Hogan, B. & Thomas, S. (2006). 'She took the time to make sure she understood': Mental health patients' experiences of being understood. *Archives of Psychiatric Nursing*, *2*, 234–241.

Shattell, M. M, Starr, S. S., & Thomas, S. P. (2007). 'Take my hand, help me out': Mental health service recipients 'experience of the therapeutic relationship. *International Journal of Mental Health Nursing, 16,* 274-284.

Shetty, N., Nagpal, D. M., Koivu, S., & Mrkobrada, M. (2015). Surgical and medical management of isolated tricuspid valve infective endocarditis in intravenous drug users. Journal of Cardiology Surgery, 31, 83 -88.

Shorter, M., & Stayt, L. C. (2009). Critical care nurses' experiences of grief in an adult intensive care unit. *Journal of Advanced Nursing, 66*(1), 159-167.

Slipczuk, L., Codolosa, J. N., Davila, C. D., Romero-Corral, A., Yun, J., Pressman, G. S., & Figueredo, V. M. (2013). Infective endocarditis epidemiology over five decades: A systematic review. *PloS one*, *8*(12), e82665.

Silverman, M. E., & Upshaw Jr, C. B. (2007). Extracardiac manifestations of infective endocarditis and their historical descriptions. *The American Journal of Cardiology, 100*(12), 1802-1807.

Smith, M. A., Smith, T. L., & Davidson, B. T. (2007). Managing the infected heart. *Critical Care Nursing Clinics of North America*, *19*(1), 99-106.

Smothers, Z., Reynolds, V., McEachern, M., Derouin, A. L., Carter, B. M., & Muzyk, A. (2018). Substance Use Education in Schools of Nursing: A Systematic Review of the Literature. *Nurse Educator*, *43*(3), 136-139.

Sohn, B. K., Thomas, S. P., Greenberg, K. H., & Pollio, D. (2017). Hearing the voices of students and teachers: A phenomenological approach to educational research. *Qualitative Research in Education, 6*(2), 121-148.

Substance Abuse and Mental Health Services Administration [SAMSHA]. (2015). Substance use disorders. Https://www.samhsa.gov/disorders/substance-use

Substance Abuse and Mental Health Services Administration [SAMSHA]. (2014). Substance use and mental health estimates from the 2013 National Survey on Drug Use and Health: Overview of findings. Https://www.samhsa.gov/data/sites/default/files/NSDUH-SR200-RecoveryMonth-2014/NSDUH-SR200-RecoveryMonth-2014.htm

Substance Abuse Mental Health Services Administration. U.S. Department of Health and Human Services. Center for Integrated Health Solutions. (n.d.). SBIRT: Screening, Brief Intervention, and Referral to Treatment opportunities for implementation and points for consideration. Https://www.integration.samhsa.gov/SBIRT_Issue_Brief.pdf

The U.S. Department of Housing and Urban Development Office of Community Planning and Development. The 2018 Annual Homelessness to Congress. Part 1: Point-In-Time Estimates of Homelessness. Assessment Report (AHAR) (2017). Https://www.hudexchange.info/resources/documents/2018-AHAR-Part-1.pdf

Thomas, S. P. (2005). Through the lens of Merleau-Ponty: Advancing the phenomenological approach to nursing research. *Nursing Philosophy, 6,* 63 -76.

Thomas, S. P. (2018). Finding inspiration from the philosophy of Maurice Merleau-Ponty for the practice of psychiatric-mental health nursing. *Archives of Psychiatric Nursing, 32*(3), 373-378.

Thomas, S. P., & Pollio, H. R. (2002). *Listening to patients: A phenomenological approach to nursing research and practice*. Springer Publishing Company.

Thompson P. Mitigating violence in the workplace. Hospitals in pursuit of excellence webinar, American Hospital Association and American Organization of Nurse Executives; 2015. Http://www.hpoe.org/resources/webinars/2698

Tookes, H., Diaz, C., Li, H., Khalid, R., & Doblecki-Lewis, S. (2015). A cost analysis of hospitalizations for infections related to injection drug use at a country safe-net hospital in Miami, Florida. PLoS ONE, 10 (6), e0129360.

Travelbee, J. (1963). What do we mean by rapport? *The American journal of nursing*, 70-72.

Travelbee, J. (1964). What's wrong with sympathy? *The American journal of nursing*, *64*, 68.

Travelbee, J. (1966). *Interpersonal aspects of nursing.* F.A. Davis Company.

Travelbee, J. (1971). *Interpersonal aspects of nursing (2nd ed.).* F.A. Davis Company.

United States Bureau of Labor Statistics. (2020). Registered nurses. Https://www.bls.gov/ooh/healthcare/registered-nurses.htm

United States Bureau of Labor Statistics. (2019). Licensed practical and licensed vocational nurses. Https://www.bls.gov/ooh/healthcare/licensed-practical-and-licensed-vocational-nurses.htm

United States Department of Health and Human Services. (2017). HHS acting secretary declares public health emergency to address national opioid crisis. Retrieved from Https://www.hhs.gov/about/news/2017/10/26/hhs-acting-secretary-declares-public-health-emergency-address-national-opioid-crisis.html#

United States Department of Agriculture Economic Research Service. (2019). Definition of food Security. Hhttps://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/definitions-of-food-security.aspx

Vagle, M. D. *Crafting phenomenological research.* Routledge.

van Boekel, L. C., Brouwers, E. P., Van Weeghel, J., & Garretsen, H. F. (2013). Stigma among health professionals towards patients with substance use disorders and its consequences for healthcare delivery: Systematic review. *Drug and Alcohol Dependence*, *131*(1-2), 23-35.

van Manen, M. M. (2002). Writing in the dark: Phenomenological studies in interpretive inquiry. Routledge.

van Manen, M. (2017). Phenomenology in Its Original Sense. *Qualitative Health Research, 27*(6), 810-825.

van Wijngaarden, E., Meide, H. V., & Dahlberg, K. (2017). Researching health care as a meaningful practice: Toward a nondualistic view on evidence for qualitative research. *Qualitative Health Research, 27*(11), 1738–1747.

Velez, C. M, Nicolaidis, C., Korthuis, P. T., & Englander, H. (2016). “It’s been an experience, a life learning experience”: A qualitative study of hospitalized patients with substance use disorders. *Journal of Internal Medicine, 32*(3), 296-303.

Volkow, N. D. (2014). Harnessing the power of science to inform substance abuse and addiction Policy and practice. *National Institute on Drug Addiction*. Https://archives.drugabuse.gov/testimonies/2014/harnessing-power-science-to-inform-substance-abuse-addiction-policy-practice

von Hippel, W., Brener, L., & von Hippel, C. (2008). Implicit prejudice toward injecting drug users predicts intentions to change jobs among drug and alcohol nurses. *Psychological Science*, *19*(1), 7-11.

Vourakis, C. (2017). Nursing roles and substance use disorders. *Journal of Addictions Nursing, 28*(3), 107-108.

West, R. (2001). Theories of addiction. *Addiction*, *96*(1), 3-13.

Wiegand, D. L., & Funk, M. (2012). Consequences of clinical situations that cause critical care nurses to experience moral distress. *Nursing Ethics*, *19*(4), 479-487. Https://journals.sagepub.com/doi/pdf/10.1177/0969733011429342

Whittington, R. (2002). Attitudes toward patient aggression amongst mental health nurses in the ‘zero tolerance’ era: Associations with burnout and length of experience. *Journal of Clinical Nursing, 11,* 819-825.

Wong, C. C., Mill, J., & Fernandes, C. (2011). Drugs and addiction: An introduction to epigenetics. Addiction, 106(3), 480-489.

World Health Organization [WHO]. (2018). People who inject drugs. Https://www.who.int/hiv/topics/idu/en/

Yeo, K. K., Chang, W. J., Lau, J. M., & Tan, S. Y. (2006). Valve replacement in endocarditis: setting limits in noncompliant intravenous drug abusers. *Hawaii Medical Journal*, *65*(6), 168-170.

Zhou, M., Wagner, L. M., Diflo, T., & Naegle, M. (2015). Implementation of the high-risk of the Alcoholism relapse scale in a liver transplant clinic. *Society of Gastroenterology Nurses And Associates, 38*(6), 447-454.

Appendices

Appendix A

Informed Consent Statement

Research Study Title: The Lived Experience of Nurses Caring for Patients Diagnosed with Infective Endocarditis Who Use or Have Used Intravenous Drugs in Appalachia: A Phenomenological Study.

Researcher(s): Kendrea Todt, MSN, RN, University of Tennessee, Knoxville
Sandra Thomas, PhD, RN, FAAN, University of Tennessee, Knoxville

Introduction

You are invited to participate in a research study conducted by a University of Tennessee graduate student involving interviewing. The purpose of the study is to describe nurses' lived experience caring for patients diagnosed with infective endocarditis in Appalachia who use or have used intravenous drugs.

Information of Participants' Involvement in the Study

This study involves either a face to face interview in person, by telephone, or virtually online using distance teleconferencing technology, Zoom, and the completion of a basic demographic form including such specifics as gender, race, and education, as examples.

Time commitment, if you agree to be in the study, you will be interviewed only one time in a natural setting you choose. The interviews generally last about an hour. The interview is not timed and will be as short or as long as you need to share your experiences. You will be asked to describe your experiences caring for patients with past or present intravenous drug use who subsequently developed endocarditis as a result of their drug use. The interview will end when you decide to end it.

The total time commitment for your involvement in the study is estimated to be no more than one hour. An estimated 5 to 20 nurses are needed to complete this study.

If you agree to be in the study, you will be asked to read this Informed Consent form. If you agree to participate you will then sign this form or waive signing your signature and give verbal consent instead. You will then fill out a basic demographic form, this last step should take no more than five minutes. Interviews will be recorded using digital audio recorders and notes taken. If interviewed using Zoom technology, interviews will be audio and video recorded. The interview will be typed up by a professional transcriber who ensures that confidentiality of data is maintained at all times. The alias or name you choose will appear on the typed transcript and there will no identifiers such as places of employment. There will be no way to connect what you have said to you.

You may choose to say no, I do not want to be in this research study. There will be no consequences. Your decision to not participate will not affect your relationship with the researchers or the University of Tennessee.

Risks

Risks associated with participation in the study are relatively low and comparable to risks encountered in daily living. There is a chance you may experience emotional distress discussing past care experiences. If distress occurs, feel free to step away or pause the interview. When ready, we will resume the discussion, or you may end your interview at any time. If the interview experience becomes uncomfortable, we will stop the interview and if needed, share resources to assist you, such as (i.e. Frontier Health or NAMI Help Line) for mental health counseling. If you experience distress at home, after the interview, please contact your health care provider and inform the researcher in charge, Kendrea Todt (423)-439-4074 as soon as possible.

A loss of confidentiality is a potential risk factor. We will discuss this further in the form.

Data Use

We will keep your information to use for future research. A secondary analysis of the data may occur to further science. In secondary analysis, the researcher uses the same interview data to answer another research question. We will not share your research data with other researchers.

Benefits

We do not expect you to benefit from being in this study. You may find talking about past experiences caring for people who use intravenous drugs with endocarditis as beneficial in knowing that your experiences may help other nurses in the future. This research will contribute to understanding care experiences as nurses live them. Participants in similar studies experienced feelings of comfort and empowerment, as well as fulfillment in knowing they helped others by sharing their experiences.

Confidentiality

We will protect the confidentiality of your information by allowing only members from the research team to see your interview. All information will be kept private. All study records will be kept confidential. Your identity will be kept confidential by using an alias or pseudonym you choose. Your identity will be known only by the researchers. All interviews will be audio or audio and video recorded and these recordings typed and transcribed for analysis, all identifying information will be removed, such as names and identifying locations. Audio and video recordings (if using Zoom distance teleconferencing) will be destroyed once transcripts are obtained.

Data will be stored securely and shared only with persons helping with data analysis or the people in charge of overseeing research at the University of Tennessee. Your name/identity or identifying locations will not be used in study research reports or publications. All research data

will be converted to digital data files and securely stored in a password and firewall protected file on UT's One Drive or in a locked filing cabinet in the principal investigator's university office. Your name and other information that can directly identify you will be deleted from your research data collected as part of the study.

We will make every effort to prevent anyone who is not on the research team from knowing that you gave us information or what information came from you. Although it is unlikely, there are times when others may need to see the information we collect about you. These include:

- People at the University of Tennessee in Knoxville who oversee research to make sure it is conducted properly.
- Government agencies (such as the Office for Human Research Protections in the U.S. Department of Health and Human Services), and others responsible for watching over the safety, effectiveness, and conduct of the research.
- If a law or court requires us to share the information, we would have to follow that law or final court ruling.

Payment

You will receive a $10-dollar Starbucks gift card for your participation. We will offer you the gift card in person as a simple thank you after the interview, whether it is a full interview or partial interview that ended early. For interviews occurring over the phone or using the distance teleconferencing technology of Zoom, we will offer to email a digital $10-dollar Starbucks gift card to you.

Costs

If you agree to be in this study, you will need to pay for transportation to the mutually agreed upon location and pay any parking fees, if interviewed in person. If you are interviewed using a telephone, such as a land line or mobile phone, you will need to pay for any data charges that you may incur, depending on your provider. Otherwise, it will not cost you anything to be in this study.

Other things to know

About 5 to 20 nurses will take part in this study, because of the small number of participants in this study, it is possible that someone could identify you based on the information we collected from you.

If we learn about any new information that may change your mind about being in the study, we will tell you. If that happens, you may be asked to sign a new consent form.

Contact Information

If you have questions or concerns about this study, or have experienced a research related problem or injury, contact the researchers.

Researcher: Kendrea Todt, (423)-439-4074, email ktodt@vols.utk.edu

Faculty Advisor: Sandra Thomas, (865)-974-7581, email sthomas@utk.edu

For questions or concerns about your rights or to speak with someone other than the research team about the study, please contact:

Institutional Review Board
The University of Tennessee, Knoxville
1534 White Avenue
Blount Hall, Room 408
Knoxville, TN 37996-1529
Phone: 865-974-7697
Email: utkirb@utk.edu

Participation

Your participation is voluntary. You may decline to be interviewed without consequence. If you decide to consent to an interview, you may stop the interview at any time with no consequence. If you stop/withdraw from the interview, the information collected to this point will be included in the study results unless you prefer us to not include your interview in the study, as this is your right. If you decide to withdraw from the study before it is complete and wish to have your interview removed, please contact the researcher at the number below. Your interview can be removed if it has not already been de-identified.

Statement of Consent

Signed consent: I have read this form and the research study has been explained to me. I have been given the chance to ask questions and my questions have been answered. If I have more questions, I have been told who to contact. By signing this document, I am agreeing to be in this study. I will receive a copy of this document after I sign it.

Name of Adult Participant	Signature of Adult Participant	Date

Waived signature: I have read this form and the research study has been explained to me. I have been given the chance to ask questions and my questions have been answered. If I have more questions, I have been told who to contact. I wish to waive signing this document and instead give verbal consent, by doing so, I am agreeing to be in this study.

Verbal Consent /Initials of Researcher	Signature of Research Team Member	Date

Researcher Signature (to be completed at time of informed consent)

I have explained the study to the participant and answered all of his/her questions. I believe that he/she understands the information described in this consent form and freely consents to be in the study.

Name of Researcher	Signature of Research Team Member	Date

Preferred Alias or Pseudonym

_____

Alias or Pseudonym Date

Appendix B

Demographics Sheet

Please ***do not write your name on this form***, ***use only the alias or pseudonym you chose***. This form will not be stored with your interview as to not be linked to your responses. This information will allow us to describe the group of nurses interviewed accurately.

1. **Date of interview ___/____/_____ Alias_____**
2. **Age _____(years)**
3. **Race _____ American Indian or Alaska Native**

   _____ Asian

   _____ Black or African American

   _____ Native Hawaiian or Pacific Islander

   _____ White or Caucasian
4. **Sex _____Male ___Female ___ Transgender___**
5. **Education level _____Terminal degree (e.g. PhD, DNP)**

   _____ Master's in nursing

   _____ Bachelor's in nursing

   _____Associate degree in nursing

   _____Licensed practical nurse
6. **Years of nursing experience _____**
7. **Nursing Specialty _____**
8. **Substance use education _____Hospital based SUD training**

   _____Nursing school

   _____No specific training or education about substance use disorder

9. Estimated number of patients with infective endocarditis who used intravenous drugs you have cared for in practice _____.

10. States and regions in which you worked while caring for these patients_____.

11. How would you describe yourself with regard to a religious or spiritual practice? _____.

Appendix C

Telephone Screening Protocol

Good morning, good afternoon, or good evening to (personal contact or suggested participant of personal contact). *I would like to speak with you about possibly participating in a research study I am conducting*. Next, I will express that either, 1) *I would like to speak to you about your experience caring for patients who use or have used intravenous drugs and were diagnosed with endocarditis, or 2) someone suggested you as a possible participant for a research study I am conducting on patients who use or have used intravenous drugs and were diagnosed with infective endocarditis.*

Would you mind if I ask you a few questions?

if the answer is yes, then I will proceed with the conversation, it no, then I will thank them for their time and cordially end the conversation.

May I ask if you to confirm if you are eighteen years of age or older?

If the answer is yes, I will proceed with the conversation, and if the answer is no, I will *thank them for their time and* end the conversation notifying them that they are not eligible to participate.

How many years have you been a licensed nurse?

If the timeline of experience is under a year or expressed as recent, close to the time of the interview, I will ask, *are you a recent nursing graduate*? If the reply is yes—
I will next ask; do you mind if I ask when you passed your National Council Licensure (NCLEX) Examination for nurses?

Based upon their response to the above question, I will either 1) politely end the conversation if they do not wish to respond, thanking them for their time, or 2) congratulate them on successfully passing their NCLEX board examination and continue the conversation, or 3) if they note they have yet to test for NCLEX or were unsuccessful on previous board attempt(s) and are continuing in their pursuit of passing NCLEX, I will encourage them to keep trying and cordially thank them for their time and end the conversation notifying them they are not eligible to participate in the research study.

I will then ask, *how many patients would you estimate you have cared for who use or have used intravenous drugs and were diagnosed with infective endocarditis?*

To those replying they have no experience I will cordially thank them for their time and end the conversation notifying them they are not eligible for participation in the research study—

For participants who meet initial screening for inclusion criteria I will then explain about involvement in the study—

This study consists of an interview where you and I will talk about your experiences caring for patients who use or have used intravenous drugs and were diagnosed with infective endocarditis. The story of these care experiences is yours, not mine, it is the stories of nurses who have lived this experience that I hope to describe. The hope is that this phenomenon will be described by listening to the stories of the nurses who have cared for patients who use or have used intravenous drugs and were diagnosed with endocarditis elucidating this care dynamic. Participation in this study is completely voluntary and you may choose to leave the study at any time.

If you are agreeable and think this is something you may be interested in participating in, I ask that you take 24 hours to think about participating. After that time, I will reach out to you by phone or simple email, asking after 24 hours, if you would like to participate in the study? If this is something you would like to do then we will set up an interview, either face to face, by telephone, or using distance teleconferencing technology.

Prior to the interview we will go over what is known as an informed consent form. This document will inform you of your involvement in the study and your rights as a participant. The second sheet is a demographic sheet that is basically a sheet that helps me describe the nurses participating in the study, such as age, race, gender, and years of nursing practice, as examples. You may decide which questions you wish to answer, as the choice is yours. First and foremost, the conversation and all documents are confidential. I will explain this in more detail should you agree to consent to an interview. If you choose not to participate, that is completely fine, as your decision will be respected, and you will not be asked again. However, should you change your mind and wish to participate, feel free to contact me at 423.439.4074 or send me an email at ktodt@vols.utk.edu. In closing, thank you again for your time, please feel free to share my contact information with nurses you know that may wish to participate. If you have any questions or concerns please reach out to me at the above contact information.

Appendix D

Confidentiality Pledge of Transcriptionist

I understand that I must hold the material I am transcribing from participant interviews in absolute confidence. No material, words, lexical phrases, or any other part of the transcript shall be shared or discussed now or at any time in the future. All identifying information such as names of people and particular places will be replaced with pseudonyms or a blank inserted. The transcribed material will be sent electronically by a password protected system and sent only to the researcher. If there is a breach in confidentiality upon transcription, I will alert the researcher expediently.

Signature _____ Date _____

Appendix E

Confidentiality Pledge of Transdisciplinary Phenomenology Research Group

As a Transdisciplinary Phenomenology Research Group (TPRG) participant, I understand that the information contained within the verbatim transcript of the study interview and ensuing TPRG discussion must be held in absolute confidence. No portions of the transcript or discourse spoken in group are to be discussed or dispersed to anyone. I understand the importance of participant confidentiality and the ethical ramifications of violating a participant's rights.

Signature _____ Date _____

Vita

Kendrea Lea Childress Todt was born September 22, 1969 to Robert Childress and Karen Gail Childress of Bristol, Tennessee. She graduated from Bristol Virginia High School in 1987. She completed her Associate Degree in the Applied Science of Nursing from Virginia Highlands Community College in Abingdon, Virginia in 1991. She began her nursing career as a staff nurse at the Johnson City Medical Center in Johnson City, Tennessee working on a medical surgical floor. In 1993 she relocated to the Bristol Regional Medical Center in Bristol, Tennessee, working there until 2003. In 2006 she began working at the Sullivan County Regional Health Department in Blountville, Tennessee, working as a school nurse within the Sullivan County School System. In 2009 she began working at an outpatient surgical center in Bristol, Tennessee. In 2012 she completed her Bachelor of Science in Nursing from King College. She completed her Master of Science in Nursing from King University in December of 2013. In January of 2014, she accepted her first full time faculty position at King University and enrolled in the University of Tennessee to begin pursuing her doctorate degree. In the Fall of 2017, she accepted a full-time faculty position at Tusculum College now Tusculum University in Greenville, Tennessee. In the Summer of 2018, she accepted a full-time faculty position with East Tennessee State University in Johnson City, Tennessee. She completed her Doctor of Philosophy at the University of Tennessee in May of 2020.